

## The Dome II – Chapter 15

Six months later, we had everything on the list including the underground garage, 4 LAVs, a 40,000 gallon tank of JP-8, 4 load outs of spare missiles for the LAV-AT and LAV-AD and tons of belted 7.62x51mm and nearly as much as belted 25mm, mixed between the M791, M792, M793, M910, MK210, and M919 rounds. The M793 and M910 were target practice rounds. The good part was the 25mm ammo worked in both the M242 Bushmaster and the GAU-12 Equalizer. When it came to using the practice ammo, we went WAY OUT in the boonies.

Maybe the \$20,000 engagement ring wasn't too bad an idea. Neither was giving Ginger every boy toy I added to our armory. Jacob was still with the Ready-Mix and they were hurting for business. We got a good deal on the underground LAV garage and 2<sup>nd</sup> bunker. Considering what we added to the bunker this time, we did a bit of reorganization. Ramón even managed a bonus, another M2A1 and an Mk 19 Mod 3.

Be that as it may, Ginger came up with 25 each Winchester 1886s in .45-70 and 1892s in .45 Colt. Better yet, she found a lot of 52 7½" original Vaqueros. Due to her extreme good fortune, Maria, Julie and she taped everyone on the ranch and ordered Laredoan Crossdraw rigs for everyone equipped with 48 cartridge loops for .45 Colt, revolver on the top, rifle on the bottom and 10 .45-70 loops. Finally, she contacted Cold Steel and ordered San Mai III Laredo or Natchez Bowies according to each person's preference. For a change, they had what she wanted in stock and Julie and she drove to Phoenix to pick up the order.

Of course when I placed that order with Buffalo Bore, the .45 Colt ammo ordered was the standard full power loads for the Vaqueros. We could just shoot up the deer grenades in the '92s. We were standing in tall alfalfa. It was a good thing too, because the bank account was down to 100 grand, the lowest it had been in years. Of course that was after our normal monthly gold and silver purchase.

"Which LAV is mine?"

"None of the four."

"Why not?"

"You're management and that means you don't get to ride around in one of those coffins on wheels. You want a VR-1, instead?"

"Ok."

"I'll order 3 more and more ammo."

"Who else gets one?"

“Hank, Ramón, and Juan each get one because they’re snipers too.”

“They have Tac-50s too?”

“Of course.”

“That doesn’t make a lot of sense; they can only shoot one rifle at a time.”

“You have an M1A Loaded, M21, HK416, HK417, Winchester 1886 and a Winchester 1892 and that Mini-14. How many rifles can you shoot at one time?”

“That’s different.”

“How?”

“You said it yourself, I’m management the same as you, Dad and Mom.”

“So are Ramón and Hank. And, of all of us, Juan is probably the best shot overall.”

“But you said the bank balance was low.”

“There’s another alfalfa check due and they started baling round bales this morning.”

“I’m not going to win this one, am I?”

“How’s it feel when the shoe’s on your foot?”

“It sort of pinches.”

“Now you know why I walk funny most of the time.”

“I picked up some prawns, filets and makings for Caesar salad for tonight.”

“Price come down?”

“No, but it has been a long time.”

As you can see married life on the ranch doesn’t differ much from married life elsewhere except on the scale of things. We eat casseroles fairly often if the truth be told. But then we raise Black Angus, hogs and chickens so we eat a fair amount of meat too. Say, I wonder if she ordered suspenders for those Crossdraw rigs. We had to get them for all of the men’s’ ALICE gear. John Wayne didn’t have that problem, because his Colt was the 4¾” Gunfighter model.

Just another day in Paradise? Only if you were inside and the air conditioning was running. The dome had both refrigerated air conditioning and electric heat but the inside temperature was like a cave, the average temperature of the year. We used more energy heating water in the electric demand water heaters than anything else. That was probably due to the lack of windows and heavily insulated steel doors with wood coverings. We did our best to make the dome appear normal. Maybe that's why I misunderstood Jacob about the 6 feet of earth sheltering. Who wants to try to mow a dome?

Ginger saw an ad on TV for some new kind of grass that put roots down 4 feet and didn't require much mowing... A week later, we were in the middle of changing from the old to the new. The old was Bermuda grass; the new was either grassology, quicklawn or patchperfect. My only interest was reduced lawn mowing of a permanent grass.

When it turned out that they came up a bit short on grass seed, I got Jacob back down to pour three pads with 3 foot high, two foot thick walls and added the 3 layers of sandbags for additional protection. The M240B remained in the primary OP and a M2A1 went in one of the other fighting positions and the Mk 19 Mod 3 in the other. Each of the three had 2 M136 AT-4 and 2 Javelins.

These fighting positions were slightly larger to allow a sniper and 2 gunners for the machine gun and Javelin missiles. Since the LAV-AT was equipped with TOW missiles and the LAV-AD with Stingers and the GRU-12, I speculated aloud we were sitting pretty; immediately generating further discussion.

It was first pointed out that either a B-52 or B1-B equipped with JDAMs could completely ruin our day. The same could be said for those mothballed F-117 Nighthawks stored at Groom Lake or a single B-2 Spirit from Whiteman AFB. And those rumored M1A3 Abrams had us out ranged by thousands of meters.

"Cal, never underestimate the American fighting man. Do it and you're going to get your butt kicked."

"Hey, we're always open to suggestions here."

"I assume that Hank agrees with me when I say there isn't much more we can do."

"Ramón's right Cal, there isn't much more we can do. If you get caught with half the stuff we have, they'll weld your cell doors shut. I think our best bet is to stick with the Winchesters and Vaqueros. With the OP manned 24/7, we should have enough warning to switch weapons."

"So, sit back, shut up and grow alfalfa?"

"Plus the livestock yes."

"That sounds downright boring."

“Well, you do have that new rifle so you could spend enough time on the range until you’re thoroughly proficient with it.”

“Speaking of which, I ordered both of you the same rifle plus a fifth for Juan. I assume you noticed the modified emplacements on the top of the dome. We’ll put Ma Deuce in one and that Mk 19 in the other. The original was made larger to accommodate that Javelin.”

“You know Cal; you’re starting to sound like TOM.”

“Ginger said something similar.”

“He may have a point when he says it’s only when not if.”

“I’ll give you that,” Ramón chuckled. “We’ve had more than our share of extraordinary events.”

“Review what we gave on hand and when we get the hay check, we’ll get it if we can.”

Ramón wanted more ammunition and ordnance while Hank wanted the grain bins topped off and all the fuels topped off monthly. If I read him right, he was suggesting another Containment Solutions 40,000 gallon tank of untaxed diesel.

After yet another discussion. Ginger and I agreed with Ramón and with Hank to the extent of getting the tank but waiting to fill it when we had yet another alfalfa check or hauled hogs and cattle to the market. These days, both checks were fairly large. Ramón got an M1114 with an Mk 19 mounted and a truckload of belted 40mm grenades. He made a list of ammo to add, but it wasn’t enough to justify the motor freight. He also mentioned he might have a lead on the Frag 12 shotgun shells. Yuma Proving Ground was reevaluating several improved rounds. So what if the ATF said they were destructive devices.

And then, just when we had the world by the tail, up popped the devil. For several years we had been confident on getting at least 10 cuttings of alfalfa per year. We’d done everything possible to ensure large yields including buying young honey bees, adding potassium and phosphorus and manure in recent years. While in most climates, alfalfa is cut three to four times a year, it can be harvested up to 12 times per year in Arizona and southern California.

Total yields are typically around four tons per acre in temperate environments, but yields have been recorded up to 16 tons per acre. Yields vary with region, weather, and the crop's stage of maturity when cut. Later cuttings improve yield, but with reduced nutritional content.

*Some damn bug* was Hank's observation about this cutting.

"Ok, what do we do about it?"

"Plow it under and plant GM corn for 2-3 years. Once we get the autotoxicity out of the soil, we can go with GM alfalfa seed and spray the fields with Roundup. That's all I know to do and depending upon which disease we're dealing with, even that might not work."

"Where did it come from?"

"Well, that's hard to say. My first thought was it was in the seed when the ash forced us to plow the fields and reseed them. I'm beginning to doubt that considering how long it has been since we started over. Hell, it could be a mold, fungus or bacteria. Some of those can lie dormant for 2 or 3 years. And, I'm not sure Roundup will solve the problem."

"Do we have time to get in a corn crop?"

"It's April so that shouldn't be a problem. You're going to have to hold off filling that new tank with untaxed diesel."

"Get the 1,280 plowed, disked and dragged. Use the same guy we used the last time. See if he can plant the corn, too. We'll buy the sprayer rigs since that sounds more like a long term proposition."

"You have enough money to do this?"

"We have reserves we can use, our retirement money."

"Ginger, Hank says there's a problem with the alfalfa. We're going to have to plow it under after this cutting and prepare the soil to grow corn for the 2 to 3 years. He also suggested we use the genetically modified seed and spray with Roundup. When we can, we plow the corn under and reseed with GM alfalfa and continue to use Roundup."

"I wanted to talk to you about filling the diesel tank anyway. I located a source for biodiesel. It's cheaper than untaxed diesel and we have the untaxed #1 diesel we can add to the biodiesel to keep it from gelling."

"When will he have some available?"

"He has 10,000 available now and said he could provide 15,000 a year for the next 2 years. The untaxed #1 costs slightly more but that should be offset by the lower price of the biodiesel. We'll just mix it at the same ratio, 20%."

“If we were anywhere further north, we’d have to increase that. Ten percent #1 only lowers the gel point 5 degrees.”

“We’ve seen no indication that those polar cold masses have come this far south.”

“Nevertheless, have the dealer top off the #1 untaxed and put 1,000 untaxed in the new tank before you get the biodiesel delivery. If you will, keep an eye on the weather channel and add taxed and untaxed #1 to the #2 as appropriate. We’ve had to disconnect from the grid before.”

“Only so they wouldn’t draw down our available power.”

“I know, but penny wise and pound foolish is something I want us to avoid being into the habit of practicing.”

“We have enough fuel for a truck stop for crying out loud!”

“You’re right of course, Ginger. When we’re full up on diesel, we’ll have 150,000 gallons and that will run the farm equipment for an extended period. But, it’s stabilized and will last until we need it. It just seems like every day we face a new challenge.

“By the way, your VR-1 is in the gun vault with your name on it. There are 350 grain Sierra MatchKing and 419 grain solid copper projectiles. Let me know when we can schedule some range time and we’ll get familiar with the new rifles and keep in practice with our existing rifles.

“You just keep finding bargains like you did on the diesel and we may be able to avoid dipping into our retirement funds due to the changes we need to make to keep the ranch going.”

“Did you ever think about converting the 1,280 to pasture, corn, soybeans and gardens and planting the 540 in alfalfa? It wouldn’t be that hard to expand the herds now that we have them as large as we do.”

“Maybe we should call a managers meeting.”

“I’ll check with Mom and Dad while you check with Hank and Ramón and we’ll schedule something for later in the week.”

“They guys said anytime so it’s at the convenience of you and your parents.”

“Thursday afternoon then. We’re going to the range late on Wednesday afternoon.”

Authors Note: *I've searched all the parks in all the cities – and found no statues of Committees.* – G. K. Chesterton (I remembered the quote as: In all the towns and cities, there are no statues to committees.)

The point to the quote is that in the end, one person is responsible for the final decision. Calling for a managers meeting only served to gather additional ideas about how to approach a problem or series of problems. Ultimately, everyone would express an opinion and conclude their remarks with something in the vein of *That's my opinion for what it's worth, Boss.* Since you're familiar with our style, Boss would be whatever Ginger and I decided, together.

We did pretty well on the range although the VR-1 lacked the R2 feature of our Tac-50s and the difference was quite noticeable. If you're not familiar with the Tac-50, it was modified, first to the Tac-50A1 and McMillan began to offer a hydraulic recoil reducer which spread the recoil over a period 6 times longer than the plain Tac-50s and Tac-50A1s. Having not shot a M107, I can't give a fair comparison... but I believe the Tac-50A1R2 has less felt recoil. And, they still cost less than an M82. One feature pertaining to the VR-1 with the A-5 McMillan stock was it came with a 7 round magazine. I went back to their website and a 7 round magazine was the standard size.

## The Dome II – Chapter 16

“The reason we called this meeting is to get input concerning whatever is affecting our alfalfa. Bob, why don’t you go first? Ginger indicated that you grew corn, soybeans and alfalfa on a rotational basis.”

“Cal, the field that grew corn the previous year was seeded with alfalfa since corn depleted the nitrogen. The field that grew corn was the field that was in soybeans the previous year and alfalfa the year before that since both the alfalfa and soybeans are nitrogen fixing. That accounted for 480 acres of the section. The last 160 was permanent pasture, the homestead, garden, orchard and whatnot. Never had a problem but I can call Andy and see if he’s heard anything that might apply. You know that although alfalfa is a perennial, it dies off about every 8 years?”

“It hasn’t been planted 8 years. Yellowstone was only 5 years back and we incorporate potassium and phosphate annually based on soil tests. Bob, I not disagreeing with you, just pointing out a few facts about our alfalfa growing program.”

“Have you thought about having an agricultural college looking at the crop and taking samples?”

“Good idea, thanks.”

“Hank, any ideas?”

“Sorry boss, nothing more than we discussed earlier.”

“Ramón?”

“What? It’s grass and our job is to guard the ranch and watch for livestock thieves. Sorry, Cal, I don’t know much about alfalfa beyond the fact that it seems to make you a lot of money.”

“I have nothing to add Cal,” Alice noted.

“The only suggestion that I’m getting out of this meeting is to check with an Ag College while Bob checks with Andy.”

“Is that why you called this meeting? You could have just asked,” Hank said with Ramón nodding in agreement.

“Well, the choices are University of Arizona in Tucson, Arizona State in Phoenix and Northern Arizona University in Flagstaff.”

“Get a plant pathologist from UAs College of Agriculture & Life Sciences, Cal.”

“Good suggestion. Thanks, Hank.”

Sometimes you have to feed the fire to have your staff come up with ideas that can solve your problem. I had heard horror stories about Monsanto and Roundup and wanted to avoid genetic modified crops if at all possible. We weren't really growing food for human consumption unless you counted the cattle and hogs. That said I didn't have any objections to growing corn and soybeans since they were a substantial portion of the grains our livestock consumed.

The downside of growing our own grains was getting them blended into COB and the other blend of cattle/hog/chicken feed. No, one cutting of alfalfa would buy a year's worth of the premixed bulk grains and alfalfa pellets.

“That seemed like a waste of time Cal.”

“Ginger, it wasn't. I got several ideas including rotating crops, getting a plant pathologist to look into the problem. I also concluded that if we can, I want to stay with alfalfa and buy the bulk mixed grains and alfalfa pellets for the livestock. I'm not ready to go to genetic modified crops unless we don't have a choice.”

“You mentioned livestock and it put me in mind of something I've wanted to bring up.”

“Ok, shoot.”

“I'd like to add Moroccan Barbs to our horse breeding mix.”

“Ok, tell me about them.”

“This might not be the best time. They're expensive.”

“How expensive?”

“Double or triple the price of stock type quarter horses.”

“Well, you could look into the subject. Looking is free.”

“And, if I find something I like?”

“We'll discuss it. I think our alfalfa problem takes precedent.”

“Should I take that as a no?”

“How about a maybe?”

“Is that the best you can do?”

“At the moment, I’m afraid so.”

We kept a 20 acre patch of the alfalfa that seems to be the most affected by the whatever. We got the Professor up from Tucson and he took samples and more samples and even more samples. He took maybe 50 plant samples and about the same number of soil samples and said he’d let us know. Meanwhile the alfalfa, being a perennial, continued to grow and it looked better this crop than the previous crop. Five weeks later, having heard nothing from Tucson, we harvested the next crop... all in the round bales.

“Yield was better this time than last, Cal.”

“Good, maybe it’s nothing to worry about due to some kind of fluke. Say Hank, Ginger brought up the subject of raising Moroccan Barbs. What do you know about the breed?”

“Barb horse or Berber horse is a northern African breed with great hardiness and stamina. The Barb generally possesses a fiery temperament and an atypical sport-horse conformation, but nevertheless has influenced modern breeds. The Barb is a light riding horse noted for its stamina. It has a powerful front end, high withers, short back, a sloping croup, and carries its tail low. It is hardy with clean legs and sound hooves. It does not have particularly good gaits, but gallops like a sprinter. It was used as breeding stock to develop racing breeds such as the Thoroughbred, American Quarter Horse, and Standardbred.

“The Barb may have had more influence on the racing breeds throughout the world than any other horse except the Arabian. Berber invaders from North Africa took their horses, the forerunners of today’s Barbs, to Europe from the early eighth century onwards. Once established with settlers on the Iberian Peninsula, the Barb horse was bred with Spanish stock under 300 years of Umayyad patronage to develop the Andalusian. The Andalusian was highly prized and it was used for major development stock in horse breeding all over the world.

“Now the Andalusian is something to behold. The Andalusian, also known as the Pure Spanish Horse or PRE (Pura Raza Española), is a horse breed from the Iberian Peninsula, where its ancestors have lived for thousands of years. The Andalusian has been recognized as an individual breed since the 15<sup>th</sup> century, and its conformation has changed very little over the centuries.

Throughout its history, it has been known for its prowess as a war horse, and was prized by the nobility. The breed was used as a tool of diplomacy by the Spanish government, and kings across Europe rode and owned Spanish horses. During the 19<sup>th</sup> century, warfare, disease and crossbreeding reduced herd numbers dramatically, and despite some recovery in the late 19<sup>th</sup> century, the trend continued into the early 20<sup>th</sup> century.

Exports of Andalusians from Spain were restricted until the 1960s, but the breed has since spread throughout the world, despite their low population. In 2010, there were more than 185,000 registered Andalusians worldwide.

“Strongly built, and compact yet elegant, Andalusians have long, thick manes and tails. Their most common coat color is gray, although they can be found in many other colors. They are known for their intelligence, sensitivity and docility. A sub-strain within the breed known as the Carthusian, is considered by breeders to be the purest strain of Andalusian, though there is no genetic evidence for this claim. The strain is still considered separate from the main breed however, and is preferred by breeders because buyers pay more for horses of Carthusian bloodlines.

There are several competing registries keeping records of horses designated as Andalusian or PRE, but they differ on their definition of the Andalusian and PRE, the purity of various strains of the breed, and the legalities of stud book ownership. At least one lawsuit was in progress as of 2011, to determine the ownership of the Spanish PRE stud book.”

“How did the lawsuit turn out?”

“I don’t have any idea, sorry.”

Hank hadn’t said anything I hadn’t already read on Wikipedia. But he was on a roll and it’s not polite to interrupt. If this crop continued to look good, Ginger might just get her wish. However, to stir the soup, I decided to bring up Andalusians.

“Know anything about Andalusians?”

“George S. Patton loved the Lipizzaner and they frequently cost more than Moroccan Barbs or Andalusians. What, you’ve actually been checking into the horses?”

“We haven’t heard from the Professor and the crop of alfalfa is looking very good. Yes, I looked up the Barb on Wikipedia and that led me to read about the Andalusians since that breed was developed from the Moroccan Barb. Have you done any window shopping?”

“I know where we can get two Barb stallions and 6 Barb mares. He also had four 5 year old Barb geldings.”

“Thirteen is an unlucky number.”

“Oh, he also has two 4 year old geldings.”

“What are the fifteen going for?”

“On average, six thousand a head with the stallion going for double the mares and the geldings slightly less than the mares.”

“That’s NINETY THOUSAND DOLLARS, Ginger.”

“They come with new, fitted tack.”

“And the mares, if they’re with foal, can’t be ridden. So out of 15 horses, we can only ride 7.”

“He knows an Andalusian breeder. But they’ll average 8 a head.”

“Eight thousand for one horse.”

“I said average. You said you looked them up on Wiki so you must be aware that Andalusians run more than Barbs.”

“When we receive the check from the current cutting, buy the Barbs. When we have some idea of what the following cutting is going to do, we’ll discuss the Andalusians.”

Do you remember the trouble I had learning to ride? Did you notice, *The Barb generally possesses a fiery temperament...* You do remember my name is Burgess, not Patton and, he was taller. Have you ever eaten in a restaurant that doesn’t list the prices on the menu? If you haven’t, take this piece of advice... if you have to ask, you can’t afford it. That’s the way things turned out 3 months later when we had the check in hand from the cutting the month before.

We had 15 head of Barbs just as she described. She did get him down to \$85 thousand. I think he made it up in the tack he supplied, no saddle bags, no pommel bags, no scabbards, no lariats and no back cinch. I ordered the missing tack. There was no way I’d rope a steer and be pulled off the front of the Barb. Assuming I got up the nerve to test *a fiery temperament*. The Barb went 14.2–15.2 hands and the Andalusians average 15.1½ hands. So, an Andalusian was the same as a tall Barb. That’s a long way to fall... A hand is 4 inches so the Barb is 56.8 inches to 60.8 inches at the withers. The Andalusians average 60.6 inches.

At the risk of repeating something Ginger told me, the modern Quarter Horse has a small, short, refined head with a straight profile, and a strong, well-muscled body, featuring a broad chest and powerful, rounded hindquarters. They usually stand between 14 and 16 hands high, although some Halter-type and English hunter-type horses may grow as tall as 17 hands.

There are two main body types: the stock type and the hunter or racing type. The stock horse type is shorter, more compact, stocky and well-muscled, yet agile. The racing and hunter type Quarter Horses are somewhat taller and smoother muscled than the stock type, more closely resembling the Thoroughbred.

Our quarter horses were average at 15 hands. They were mixed and the four I'd learned to ride on ran the gamut from 14+ hands to 16 hands. I finally convinced myself that I'd show that Barb I'd picked out who was Boss. They say learning to ride a horse is a learning experience and that Barb taught me about his temper. It's a good thing I picked a gelding for my first ride, they're gentler.

"You're afraid of the Barb. You should have seen yourself flying through the air. Show no fear Cal or you'll spend your life being an aeroplane."

"Then you show me Ginger. He's got a good head of steam worked up so you just show me."

I'll be darned if she didn't. It reminded me of when I was angry after three horses and let all the anger out on the fourth horse. Which of course, embarrassed me, and made me mad. I didn't have any trouble riding the second gelding. And then, I remember my conversation with Hank about not telling the horse I was angry at myself and not the horse and decided to keep it to myself. Sometimes I get flashbacks. Old age? No, I still have staying power and unlimited practice time.

That goes without saying... when we're not worrying over the next disaster. I remember 9 but can't remember if we had a 10. That alfalfa problem could have been number 10, but nothing came of it. No, the Comet was number 10. They never caught the cattle thieves, either; but we filed an insurance claim and they paid market price for the 6 head of 1,200 pound beef on the day of the theft. The agent wouldn't take the claim until I gave him a copy of the Sheriff's Report.

That's fine and good, as far as it goes. You do recall my concerns about China and Russia and their SSBNs, right? I had a link to Sino Defense and could follow the Chinese buildup but Russia was horse of a different color and there wasn't a Russia Defense where I could follow the Russian build up with any degree of accuracy. If I knew what to look for, I could usually find some kind of reference on Wikipedia. Although the Bulava missile utilizes some engineering solutions used for the recent Topol M, it was mostly engineered from the ground up. The most recent test was a failure due to a malfunction in one of its systems on the second minute of the flight.

How many unsuccessful launches of D-5 Trident II have we had? The flight test program of the missile and the guidance subsystems of the weapon system began in January 1987, and the overall performance results from the tests indicated that the missile was achieving its objectives for this phase of the program. Of the 15 tests conducted as of September 30, 1988, 11 were successful, 1 was partially successful, 2 were failures, and one was a "no-test" [the 15th flight test was destroyed by command destruct early in its flight while the missile was performing normally at the time the decision was made to destruct: therefore, the flight was a "no-test"]. Although the majority of the tests were

successful, each of the failures involved different problems and occurred at different stages of the missile flight.

The Trident II can carry up to 14 MIRV warheads but START I reduced this to eight and SORT reduces this yet further to four or five. New START provides for further reductions in deployed launch vehicles, limiting the number of Submarine-launched ballistic missiles (SLBM) to 288, and the number of deployed SLBM warheads to a total of 1,152. Twenty-four times 14 = 336, so even with a single warhead, we can't deploy all 336 missiles. Deployed warheads are limited to 1,152 or 82 per boat with 4 warheads per missile. The Trident II's capacity is 14 warheads per missile. Another reason I didn't vote for him.

We don't really need more ammo or matériel; we're set for several wars. With that in mind, when Hank told me the yield of the alfalfa crop we shipped last week, I told Ginger she could have 4 mares and 4 geldings and we'd use an outside stud service. Even if we bought 2 Andalusian stallions, we have to use an outside stud periodically, so why not do it from the start? Since the Lipizzaner was derived from among others, the Andalusian, I hope she knows better than to buy the very rare Lipizzaner.

Ginger bought what we agreed on, 4 Andalusian mares (with foal) and 4 5 year old Andalusian geldings. Tack wasn't included so we waited for the alfalfa check and bought 4 complete sets of tack. A complete set of tack includes the double rigged Western riding saddle, saddle blanket, saddlebags, pommel bags, a lariat and a halter.

"I didn't realize we were buying war horses."

"I think El Cid might have rode one."

"I seem to recall that he did. But why Andalusians?"

"Hey, it was your idea."

"I know, but I didn't realize they were war horse."

"What, you thought maybe they rode Pintos?"

"And those Barbs are war horse too, aren't they. Buying the Barbs was your idea."

"Big deal, so we bought war horses. Once our breeding program is well established they'll simply be another source of income. That Professor called and said his report and bill for services rendered is in the mail."

"Did he tell you what the problem was?"

"Not really. He said his results were inconclusive."

“How much was his fee?”

“Five grand.”

“That was money down the drain. We should have waited before hiring him. We knew when the next cutting started growing that our suspicions were unfounded.”

“It was probably a good idea Cal. It could have been something serious. Andy called Dad and told him they hadn’t had problems with their alfalfa and he didn’t have a clue what it might be. You don’t suppose the soil reports were inaccurate and too much or too little of potassium and phosphate was used?”

“It’s possible. We contract that out and someone could have made an error.”

“Are you going to ride the Andalusians?”

“I plan to. I managed to finally ride the Barbs and the Andalusians are about the same size. Do you plan to have their training include acceptance of gunfire without bolting?”

“Already in progress with geldings and the mares will be trained after they drop their foals. All of the Barbs completed their gunfire training some time ago.”

“We haven’t had them that long.”

“I think the breeder must have included gunfire training from early on. What would think about adding Lipizzaners?”

“No mas! If you can get a really good price on more Barbs or Andalusians, do that instead. I don’t really like this living from paycheck to paycheck like we’ve been doing recently. We should hold off on more purchases until we have a couple of million in the bank and the precious metals vault is a little fuller.

“That one story that Jerry wrote, *Expedition*, talked about the *Dark Times*. I know we’ve had multiple extraordinary events but my sense is that we could be in for more. He used Times, not Time, so was Kenni foretelling one event or multiple events? Maybe we should up the LTS foods from their current 5 year level to 10 years or more. And, while we’re at it, increase the total supplies to cover 100 people rather than 65. That includes the gas masks and PPE.”

“I’ll contact Oregon Freeze Dry and see if we can work a deal and eliminate the middlemen.”

“Good idea. Contact Rainy Day Foods and see if you can work the same deal with them. If you can, we’ll arrange transport ourselves so we have the food before the 22<sup>nd</sup> Century.”

“They aren’t that bad!”

“Maybe not but it sure seems like it. You should probably get a shipment of those pails and Mylar bags, oxygen absorbers and a couple of bag sealers, too. Contact Lehman’s and get, say, 5 more of those Diamant 525 grain mills with plenty of spare parts to add to our trade goods. And ask if they have motorization kits or know where to get them.”

“Are we ok on firearms?”

“With the last purchase of M1A Loaded and the H&K rifles, we should have enough weapons. Ammo might be a different issue. I’ll talk to Ramón and see where we stand in the ammunition department. I think we’re ok because we usually buy ammo when we buy firearms. Rather than guessing, I’ll just have the ammo inventoried again. I can tell you what he’ll say. ‘Again?’ Despite that, he’s a good Chief of Security.”

“It appears that we have our work planned out for a while.”

“Any idea how we can increase everything and still add to our precious metal supply?”

“Nope.”

## The Dome II – Chapter 17

I had no idea why I felt the way I did about increasing our preps. Was it one of those *would you rather have it* situations? About the only things we were missing were trapdoor Springfield carbines... but, we had enough 1886 Winchester in .45-70 and 1892 in .45 Colt to cover that need. We could end up having the same problem that Custer had; being outnumbered. That said we were equipped about as well as a mechanized Infantry Marine Platoon with weapons squad.

“Ramón, what’s our ordnance situation?”

“Stored ordnance?”

“Yeah. Hard to tell how much the issue ordnance has been expended.”

“No, it’s not.”

“What do you mean?”

“I can make simple spreadsheets. I have an Excel spreadsheet to track ammo stored and ammo issued. I implemented standard load outs for each type of firearms we have. So, when someone practices, for instance, they bring their expended brass and it is replaced one for one. Standard load out for the .45 Colts is 100 rounds whether it’s a revolver or rifle. The .45-70 is 50 rounds, the 5.56×45mm 300 rounds, the 7.62×51mm 200 rounds and other calibers are similar.”

“What about the ammo in the Dome?”

“I just ignore that until Ginger or you draw more.”

“Bob and Alice?”

“They live in the Dome, same deal.”

“Reorder points?”

“Built-in and automatically ordered. I count it when it comes in and add it to the spreadsheet. Order points are based on the most economical purchase quantity and at times we’re a bit overstocked; but, rarely understocked.”

“Well, ok, I guess.”

“You got a burr under your saddle, Boss?”

“Ginger and I were talking about some things and I brought up Jerry D Young’s *Expedition*.”

“That the one where they go to Brazil on a scientific exploration?”

“You’ve read it?”

“Don’t sound so surprised I can read and even program simple spreadsheets.”

“Do you remember Kenni’s warning about the *Dark Times*?”

“Yeah. That got you worried?”

“Concerned anyway. We’re going to add more food so we have a 10 year supply for 100 people. I figured we had enough firearms for 100 people but wasn’t sure about the ammo.”

“I check both and let you know. You want a minimum 10 year supply of ammo?”

“For sure; and, maybe longer.”

“Now you’re starting to sound like Tired Old Man.”

“Et tu Ramón?”

“Huh?”

“Ginger often compares me to TOM.”

“That description of the guy you said to not let on the ranch must be TOM.”

“Yep.”

“I’ll let you know about the firearms and ammo.”

“K.”

“Ramón follows the ammo supply on a spreadsheet.”

“He told me.”

“And, you didn’t tell me?”

“I thought you already knew. I contacted Oregon Freeze Dry. I asked about a 5 year supply for 65 people plus a 10 year supply for 35 additional people. She said that was a 5 year supply for 135 people and they’d take the order. When she asked what I wanted for food, I told her whatever Emergency Essentials would supply for 130 people for 5

years. She said she'd call back with the price and they'd ship when the funds cleared. It will come by train.

"Next, I called Walton Feed aka Rainy Day Foods. I told him I wanted enough of the basic units for 5 years for 135 people. He said that was 675 basic units of 3 super pails of hard red wheat, 2 super pails of hard white wheat, 1 super pail of small white beans, 1 super pail of instant milk, 1 super pail of pinto beans, 3 super pails of white rice, 1 super pail of black turtle beans, 1 super pail of quick oats, 1 #10 can of shortening powder, 1 #10 can of baking soda, 1 #10 can of baking powder, 1 #10 can of iodized salt, 2 #10 cans of sugar, 1 #2.5 can of beef bouillon, 1 #2.5 can of chicken bouillon, 3 packages of yeast and 1 lid remover.

"I asked about coconut oil and they don't carry it. Anyway, their deluxe unit for 1 year for 1 is \$1,474 plus shipping, their standard 1 year unit for 1 is \$1,076 plus shipping and the basic unit I described to you is \$659. However it includes 13 pails rather than the 9 pails included with the deluxe unit. I told him I'd have to get back to him.

"Finally, I did an internet search for coconut oil. The largest container I could find was Gold Label Virgin Coconut Oil Certified Organic 5 gallons (640 FL. oz.) for \$250. Jerry reconstitutes shortening and butter powder with coconut oil. I rechecked Walton and they have butter powder in a 50 pound bag for \$285 and margarine powder in a 50 pound bag for \$130. They recommend you add a small amount of oil to either product."

"Did the Walton guy indicate any kind of discount?"

"Nope."

"Did you ask?"

"Nope. He had an attitude."

"We'll need 13 times 675 or 8,775 pails with lids and 5 gallon bags. Check for Uline on the Internet. I think they have a good price on 5 gallon pails. That will mean more pails, bags and oxygen absorbers but we should be money ahead. If I recall correctly they have the 5 gallon pails 120 per pallet. Let's see, 8,775 times 6 equals 52,650. And, 52,650 divided by 5 equals 10,530. Divide that by 120 and we need 88 pallets. The lids are separate and about \$1.40. Well, ballpark anyway. You know, they sell the Mylar bags and the sealers. I'm not sure on the oxygen absorbers or desiccants, but you can ask. Their nearest location is probably Los Angeles but ask anyway."

"You sure you don't have the phone number?"

"Nah, I ran across them on the web. Wait, here you go: Los Angeles 2950 Jurupa St. Ontario, CA 91761 1-800-295-5510. You're just going to ask which size Mylar bag we need for the five gallon pails."

“Where are we going to store the stuff?”

“I’ll call Jacob. Earth sheltered above ground ok?”

“Yeah, whatever.”

“I’ll get on the phone for the increased supply of PPE, unless you want to handle that.”

“Maybe I’d better do that.”

“Ok, I’ll order the ALICE gear and call Cold Steel about the tomahawks, machetes and bowie knives.”

“In that case, I’ll call Laredo for the scabbards and Phoenix for the other tack. If you want everyone to have a mount and remount, I’ll contact the stock horse breeder. We can hold off on the Barbs and Andalusians until later.”

“Did you line up a stud service?”

“Two and both charge anywhere from \$1,500 to \$2,500.”

“Why so high?”

“Registered studs. Oh, Oregon Freeze Dried said it would take up to 3 months to assemble the order. On the beans we’ll order from the Dakotas, chilies from New Mexico and the wheat from Kansas. I’ve got a line on the rice from Arkansas. We can get Folders from either their Kansas City plant or NOLA.”

“What am I missing?”

“Refilling the grain silos and topping off the fuels.”

“On it. If you’re anywhere near the freezer pull out 4 steaks and a bag of prawns or jumbo shrimp.”

“We’re out of Romaine lettuce.”

“Could Bob and Alice make a quick trip to Tucson? We’re about out of Merlot, too.”

“I’ll ask. A Question.

“We’ve been spending money like a sailor on shore leave. I’m curious how we can pay for all the things we’re buying.”

"I called our bank and discussed an open line of credit of up to \$500,000. On a good year, alfalfa generates about \$7½ million and the livestock sales another quarter to half million. The line of credit was authorized on the spot.

"And the line of credit is just in case our spending out strips our income from alfalfa sales. I don't believe we'll need to use the line of credit unless our timing is off concerning things like the LTS food delivery, our ammunition requirements or a host of otherwise inconsequential events."

"Where are we going to store everything? Oregon Freeze Dried was talking about rail cars and 88 pallets of pails are probably a few truckloads. Once those pails are filled, they'll take a whole lot more room than they do empty."

Almost in a chorus, we both said "Jacob!"

"Double wall construction and 2 stories of empty space, Cal? Eight inch concrete walls with accelerator and fiberglass fibers? Four double leaf doors installed in airlock fashion? Oh and modification to the barn to add an airlock on either end? Gee, I don't know. I'll need dimensions before I can start figuring. You want slip forms for horizontal walls, too. You in a big rush?"

"Jacob, I'd like it finished in 3 months tops. Well, I guess just the inner walls in 3 months because that's when we're expecting a shipment of several railcars of goods we'll be storing."

"What about those air purifiers and plumbing?"

"A small office inside next to one of the doors with a ¾ bath. Make the office 100 square feet with frame construction, insulation, ¾ inch drywall and the bath only as large as it need to be for the shower, stool and sink. We can put a demand hot water heater and put the air purifier on top of the office and bath. I'll order the air purifiers, hot water heater and office equipment. Oh, connect the Warehouse using pedestrian underpass to the nearest tunnel section. I'll let you know when we have the dimensions."

"Ginger, I talked to Jacob and he needs dimensions. Call Oregon and get the volume in cubic feet and I'll measure a stack of pails five high and convert the height to reflect 5 gallon pails. We might just as well keep like goods in rows with a small aisle from airlock to airlock."

Four months later, after extending the line of credit to \$1.5 million, the Warehouse was done and the freeze dried goods were carefully arranged by type on one side of the Warehouse. All the teens and women on the ranch were putting in 8 hour days 6 days a week filling the five gallon pails with bulk purchased hard red spring wheat, soft white wheat and durum wheat for semolina, rye to break the monotony, rice, beans, quick oats, shortening powder, baking soda, baking powder, salt, sugar, margarine powder,

butter powder, whole milk powder, beef and chicken bouillon and last but not least, yeast.

We also packed chilies from New Mexico and the rice was Jasmine and long grain white rice purchased from Arkansas in 100 pound bags. Space was also filling with Charmin, Folgers Classic and Bigelow tea. There was even a small locked up section next to the office reserved for liquor. We bought a whole barrel from Jack Daniels and several cases of Gentleman Jack and Jack Black. We had some of everything, excluding Dom Pérignon and only a six cases of Cristal. The desk in the office was positioned directly across from the door which was all safety glass. The Warehouse required an inventory program and I had Ramón work up a spreadsheet once we had an inventory. The Coconut oil was stored frozen in freezers next to liquor.

We also hired a butcher and a meat cutter and set aside a small area in the overbuilt Warehouse to process beef, pork and poultry. The smoke house was outside. Ginger doubled the chicken flock and had half the flock sitting on eggs to produce more chickens. It took her a while to adjust the balance between broody hens and layers.

After we had the stocks assembled and the bank paid off, we looked at the potential of truck farming. Considering the temperatures this far south, any gardening would be earlier in the year or later in the year or maybe both. Ginger contacted The Ark Institute and ordered heirloom seeds for those fruits and vegetables we ate. From some things she saw on their website, she ordered a Crown Berkey for each family and spares for the Warehouse plus enough black filter elements to last a Century or more. She also contacted Medical Corps Org and loaded up on potassium iodate, doubling the amount we had on hand.

We now had on the order of 100 full sized FM50, 50 medium sized and 50 small sized plus extra Baby Safe Pro and the Child Safe Pro with plenty of extra filters. We now had a total of 25 of each.

When the next alfalfa check arrived, half went into gold and silver, the food stores were replaced and Ginger bought the one group of items missed when the Warehouse was being filled, feminine hygiene. By now the women living on the ranch had accepted her former choices, Tampax, Always Maxi-pads and panty-liners. Contraception was also uniform, due to circumstances and all the women who could, used Depo-Provera. We even stocked the injections (prefilled syringes) in our one bed clinic. The first injection was provided by an OB/GYN in Tucson and follow up injections by Ginger.

The next alfalfa check went half into gold and silver, paid estimated taxes and replaced anything consumed during the past month. We maintained \$250 thousand in the business account to allow Ramón freedom to order ammunition as needed. He had observed that we were a sharp contrast with Arizona National Guard in that everyone practiced at least monthly with all their weapons. He'd recently retired with 20 years in and would have to wait to age 65 to begin drawing his pension.

I was happy that he retired. We simply couldn't afford to have him away from the ranch for 12 weekends and 2 weeks during the summer. We'd had spare aftermarket tanks installed in his and Hank's vehicles and either vehicle could make a round trip to Camp Navajo with fuel to spare. On another topic, I had added additional Coors pint glasses from Beer Collections, upping the quantity from 24 of each to 96 of each. And with the Friday meetings, switched to full beer kegs (15.5 gallons) and keeping 4 of each in reserve under refrigeration.

"Want to increase the gardens this year? We've only been doing the early planting, but we could also do a late planting."

"How big?"

"I was thinking 20 acres."

"Is that 20 acres twice a year?"

"Yes."

"Drop dead."

"Huh?"

"We're producing almost more than we can eat from the garden we have. The canned goods have a definite shelf life and I doubt there's enough energy among the women on this ranch to do a second garden. In case you're wondering, I got more of the mixes from Canning Pantry for pickles and tomatoes and there is a whole section in the Warehouse with new canning jars and spare Tattler lids and rings."

"You do make good pickles."

"Don't change the subject, but thank you."

"Saw through that did you?"

"We've been married long enough that you're virtually transparent."

"Do you feel like riding up to Prescott?"

"What's in Prescott?"

"Davidsons."

"And just what is Davidsons?"

“They are the firearms company that now has exclusive distribution rights to the new line of Winchester rifles.”

“And, you’re hoping to get lucky?”

“It was a thought.”

“Well, think about this. They probably limit sales of each model and caliber to one of each to their dealers. Considering our past experience, we’d be better off going to Tombstone because of the number of dealers there. And, we should stop in Tucson on the way down instead of the way back. Plan B would be to send Ramón to Phoenix, Hank to Tucson and the two of us go to Tombstone. While it’s on my mind, make sure we have at least 100 M1A Loaded models with 25 25-round magazines per. If that means we buy more 168 grain ammo so be it.”

Is it just me or is Ginger a little pushy?

## The Dome II – Chapter 18

Got lucky. Each dealer in Tombstone had just received a shipment and had one each 1892 in .45 Colt with a 20 inch barrel and a 24 inch barrel. They likewise had one 1886 with a 24 inch barrel. We also found a few pre-2006 Ruger Vaqueros in .45 Colt in either 5½ or 7½ inch barrels and bought all of each that we found. Ginger was carrying her large Galco shoulder bag and just kept pulling out the Ben Franklins. I'm definitely going to have to order more .45 Colt and .45-70-405 ammo.

Hank beat us home and he was grinning from ear to ear.

"So, from the smile, you did well."

"They'd just gotten in their shipments and not only did I get a 20 inch and 24 inch '92, I got a 24 inch '86 from each dealer. Not all of them had pre-2006 Vaqueros but, on average, I got 2 per dealer. I'm glad Ginger gave me as much cash as she did. You're going to need to have Ramón order a bunch of .45 Colt and .45-70. How'd you do?"

"It must have been our lucky day. Each dealer in Tombstone had just received a shipment and had one each 1892 in .45 Colt with a 20 inch barrel and a 24 inch barrel. They also had one 1886 with a 24 inch barrel. We also found a few pre-2006 Ruger Vaqueros in .45 Colt in either 5½ or 7½ inch barrels and bought all of each that we found. Is Ramón back yet?"

"Nope, but there are more stores in Phoenix than Tucson and it's further away."

Ramón didn't return that night and he didn't even give us the courtesy of a phone call. It was around 4pm the next day when he did show up and he looked beat.

"You look like you been rode hard and put up wet."

"Cal, I have to tell you that you aren't off the mark by much. Ginger gave 10 bundles of hundreds, thank God. It seems like nearly every dealer in Phoenix had just gotten in their Winchester shipments and each had a '92 in both the 20 and 24 inch barrels. They also had one '86 in the 24" barrel. On top of that, 3 dealers had several .45 Colt pre-2006 Vaqueros with 5½ inch barrels. I don't have much cash left, but we have Winchesters and Vaqueros running out our ears. I'm going to need to order more ammo. How did you do? What about Hank?"

"Well, we picked up a few. You can put them all away tomorrow and after you do, order the ammo. Remember we want the full power .45 Colt for the Vaqueros and the deer grenades for the 1892s. Go with the .45-70-405 rounds for the 1886s."

"But you didn't really say how you did."

"Fair to middling."

“You’re mean, husband of mine.”

“And, how did you know the perfect time to go shopping for Winchesters and Vaqueros?”

“Call it hunch... or woman’s intuition. I didn’t know and we could have been wasting our time and fuel. Sometimes something is just perfect and you know to grab on and hold on for all it’s worth. There’s something I have to tell you. I’ve been reading your journal. You stopped talking about the children shortly after the twins were born. Can you explain that?”

“Not really. Well, we had Yellowstone and on January 1, 2016 that nuke in San Diego. We got really busy after we left the shelter/dome. But no, I can’t explain it.”

“Did you set aside firearms for them?”

“Yes ma’am. Each has Kimber Custom TLE II, a PT1911B, a Browning Hi-Power Classic, a Walther PPK in .380acp, a Mossberg 590A1, a Loaded M1A with scope and EOTech sight, using those Sadlak scope mounts, the Surefire suppressor and Harris bipod. In addition, they have M21s with the same accessories as the Loaded M1As including in both cases the Springfield Armory leather sling and Nightforce NXS 3.5-15x50 F1 riflescopes with the MLR2.0 reticles plus a mount for the AN/PVS-22 Universal Night Sight and the night sights which I finally broke down and bought one for each M21. I haven’t bought them the Tac-50s or VR-1s yet; do you think I should?”

“You tell me.”

“First off, Nightforce no longer manufactures the NXS 12-42x56mm with the mil dot reticle. I’ll put in an order for 3 of the Tac-50A1R2 with the McMann Night vision rail and the Elite Iron suppressors. I’ll get parts kits and the whole nine yards. That Canadian, Furlong, used a Leupold Mark 4-16x40mm LR/T M1 Riflescope. However, I was thinking about the US Optics SN3 5-25x58 T-Pal. They’re actually better scopes.”

“MUNS?”

“Absolutely. Hornady 750 grain A-MAX match and Mk211MP, say 4,800 rounds of each per rifle.”

“No VR-1s?”

“They kick a lot more than the A1R2.”

“Still...”

“Ok, VR-1s in .408 CheyTac.”

“You didn’t mention the Winchesters or Vaqueros.”

“Would an 1886 with a 24 inch barrel and 1892s with 20 and 24 inch barrels do it? We can buy some cowboy loads to start them out on.”

“Close, but no cigar. Winchester 9422s in 22LR, Ruger Ranch rifles with 20 inch after-market barrels with 1 turn in 7, Ruger Bearcats and Single Sixes to start off with and Coach Guns. Ruger pre-2006 .45 Colt revolvers in all 4 barrel lengths including the 3¾, 4⅝, 5½ and 7½ inch. Ditto the SR-556 with the same 20 barrels and the Ruger SR-762 with 20 inch barrels with 1 turn in 10 plus an HK416 and an HK417 apiece. At least 2 X Products drums for each magazine fed rifle and 25 25 round magazines for the M1As.”

“You done?”

“Yep.”

“I work on the M1A Loadeds, M21s, Tac-50A1R2s and the VR-1s in .408 CheyTac and you handle the rest.”

“Ok.”

I suppose before this is all said and done, we’ll drop another cutting of alfalfa on a small number of firearms but if she’s happy, I’m ecstatic. I have to tell you it’s just a good thing we’re breeding stock horses, Barbs and Andalusians. All we need to buy for them is complete sets of tack and it sure isn’t going to be hand tooled. I love them to death but my name isn’t ‘Daddy Warbucks’. With our gold and silver acquisition program, our three are going to be wealthy beyond belief and will each own a full section of decent real estate.

“Cal, can you come to the office?”

“What’s up?”

“Just come to the office please.”

“Ok, I’m here, now tell me what’s up.”

“It’s one of those good news, bad news things. We found another cut fence in the pasture. The good news is that we did a head count and we aren’t missing any horses, beef or hogs.”

“You still running the patrols Ramón?”

“Same as before, irregular half hour intervals.”

“Ok, I want you to do some things. One, assemble a 12 member Rapid Reaction Force. Two, cut the irregular 30 minute intervals to irregular 15 minute intervals with one person instead of two for each interval. Locate and acquire AN/PVS-14 Monocular Night Vision Devices. Try Optics Planet in Northbrook Illinois; if they have them in stock pay for overnight shipping. We don't have Kraut helmets so check for a separate mounting kit, like the Armasight Hands-Free Night Vision Monocular Kit. Use all three M1114s with the 2 standard LAV-25s for backup.

“If we catch whoever is doing it, shoot, shovel and shut up. The rules of engagement are simple. If the outrider spots someone cutting the fence, radio for the Rapid Response Force and lay low until they get there. The RRF should be able to get to anywhere on the Ranch in 5 minutes so that will be the maximum allowed response time.”

“Cal, we don't really have what I'd call Rapid Response Force types on the payroll. Our people are good, but not that good. Furthermore, it would mean pulling them off their jobs to have dedicated RRF.”

“Suggestions?”

“I may know some Highway Patrol, Police and Deputy Sheriffs that will fill the bill.”

“Ramón, hiring you forced us to raise everyone's wages. We can't bring on 12 more people at \$48k per year.”

“Ah, but I was hired a Chief of Security and that's why we wouldn't accept your offer of \$42k. We'd have 3 shifts, each staffed by 4 people. One would roust the other 8 using radios and we'd practice until we could have all 3 M1114s anywhere on the ranch in 5 minutes. I believe I can get 12 people at \$42k without much of a problem. You're going to have to provide housing and all the rest. We can roust regular employees to man the LAV-25s.”

“I'll get back to you.”

“... and that's the situation, Ginger. Someone is looking to rustle more livestock. Ramón has a point about taking our people off their regular jobs. But, it means another 12 doublewides and another shelter plus more food, PPE and all that goes with it. On top of that I'm guessing that they'll want Kimber's and H&K rifles plus those 590A1 shotguns and maybe Hi-Power Classic and Walther's for backup and hideout pistols.”

“As long as it doesn't affect what you're buying for the children, it's up to you Cal. But I'm telling you, the kids come first. We've been an armed camp for quite some time, but never with professionals. The thought makes me uneasy. They could come in handy though if Kenni was right.”

“Kenni is a character in a PAW fiction story. Can Jerry see the future? Maybe, but they should change his name to Rick Rescorla.”

“Who was he?”

“He was British soldier but joined the American Army, went through OCS and fought in the Battle of Ia Drang with Colonel Hal Moore. He’s the man on the cover of the book *We Were Soldiers Once... And Young*. More importantly he was the Chief of Security for Morgan Stanley on 9/11/01. Rescorla was the subject of a 2005 documentary entitled *The Man Who Predicted 9/11*. The film was shown on Channel 4 in the UK and the History Channel in the United States. The firm lost 13 employees during the September 11 attacks in 2001 (Thomas F. Swift, Wesley Mercer, Jennifer de Jesus, Joseph DiPillato, Nolbert Salomon, Godwin Forde, Steve R. Strauss, Lindsay C. Herkness, Albert Joseph, Jorge Velazquez, Titus Davidson, Charles Laurencin and Security Director Rick Rescorla), while 2,687 were successfully evacuated.”

“I think I may have seen that, but that was a long time ago. Anyway do what you must to protect the ranch and our family.”

“Gotcha.”

I called the dealer we’d bought batch of 8 homes from and told him I needed 12 more. He said they no longer made that model, but he could come close if I’d settle for activity rooms. I told him to go ahead and call when he had all 12 in and I pay him COD. When I thought about it, I knew he was shining me on and called him back. He admitted that either version was available but they had changed model numbers. I told him to make it half and half, on a hunch and that I expect all 12 to be priced at the price of the lower cost model. He agreed.

Then, I called a class 3 dealer in Phoenix who had been investigated by the BATFE several times and accused of dealing in the H&Ks. I’d bought several of the HK416s and HK417s from him and knew he had a source. I ordered 12 of everything Ginger and I discussed including both the 416 and 417, suppressors, etc. He quoted a price... I offered less but offered to pay in gold which at the moment was running just above \$2,000. We had a deal and he’d deliver; gold on the barrel head. The gold would be valued at the spot price on the day of delivery.

I had a head of steam built and called Avon Protection Systems for more of the gas masks and a, gulp, large quantity of spare filters. I think those filters are made of gold. We had an excess of Winchester rifles and pre-2006 Ruger Vaqueros at the moment and I skipped those. I called Emergency Essentials and told them exactly what I presumed I needed for 42 people (12x3.5) for 10 years and got their best price. I called the bank and wired the money. And then I paused long enough to tell Ginger we needed the pails for 42 people for 10 years. She said she’d see to it.

I checked with Hank and we could provide mounts but no remounts of the stock horses. A couple more years, he said, and we'd even have remounts. We had some 2 and 3 year olds in training. Then I called Jacob.

"What now Cal? Another barn, a shelter, tunnels, garages, what?"

"Well, I called about another shelter, but now that you mention it, all of the above."

"I'll check with the boss but I'll probably bring down a small batch plant, again. How soon?"

"ASAP. And, Jacob, the shelter should be large enough for 20 families or 7,000ft<sup>2</sup>."

"It would be easier to make it 100 foot square. I would also probably save us another trip later."

"Do that. Plan on adding another section to the barn, our herd of horses is growing."

"You'll get the doors and air systems?"

"Yes, just like always. The garage, no, make that garages, should handle 6 vehicles and we'd better build 4. Each building will be connected to the tunnel system."

That meant getting 2 sets of ignition components times 24, 6 dozen more CM-300s and a gross of CP-200s. Also, more tires and wheels, filters and what not. I'd given in and got a tire balancing machine some time back when we'd bought all the extra tires. I couldn't get lead wheel weights and had to settle for zinc. We had every tire store in Phoenix and Tucson saving used lead wheel weights for us and we were paying the Chicago Mercantile price for lead.

One of the Vaqueros was a better mechanic than Vaquero and he was a good Vaquero. He was working about half-time keeping all the vehicles running. He could handle gas or diesel engines. He had some experience installing those Cummins 4BT and 6BT engines. We had 6 of each still in the crates in the Warehouse.

I called McMillan and ordered 3 more Tac-50A1R2s, with everything including the high priced scopes and MUNS. Then I ordered 3 more VR-1s in .408 CheyTac, complete in every regard. While I had them on the phone I ordered more of the ammo in the cans. They said they didn't have it in stock in the quantity ordered but would have it when the rifles were finished. I wired them money too.

At this point in time, I had to stop and wait for more alfalfa checks or use the line of credit. I decided to wait. The line of credit was tied to our checking account and if we overdrew the account, \$50k increments were automatically added to the checking account and shown as a draw on the line of credit. Stupid me, I forgot to tell Ginger I was holding off on the spending.

We didn't sell horses. We bred the mares as often as possible and gelded the colts. Every other breeding cycle we brought in outside sires except for the Andalusians which were all outside sires from different breeders. Hank kept track of that and we were bringing in sires from far and wide. We didn't want a problem arising because of inbreeding. If you're trying to do something like reestablish the Morgan line, inbreeding was the way to go. Hell, we didn't even own any Morgan's.

Sorry about cussing, just checked the bank balance and saw \$100k transferred from the line of credit. We ran it up before and it appears we're doing it again. I said to myself, "In for the penny, in for the pound" and placed more orders. We were back to spending money like sailors on shore leave and neither of us had been in the military. If a person looked our ordnance and matériel, they would no doubt think we were the military.

While Jacob had a crew excavating for the shelter and tunnels, he had another crew run a trencher creating the trench for the utilities. One advantage to the 12 new doublewides was that the location of the utility hookups hadn't changed. Different, my aching hind end. He slipped up though when the order was placed, we got 3 bedroom models with the Activity Rooms and optional Study. We could equip the Study as the communications shack with CBs and CM-300s.

The thing about being an armed camp with as much ammo and food as we have, if our neighbors from the Tohono O'odham Reservation attack, we can probably hold them off until we run out of food.

Historically, the O'odham inhabited an enormous area of land in the southwest, extending South to Sonora, Mexico, north to Central Arizona (just north of Phoenix, Arizona), west to the Gulf of California, and east to the San Pedro River. This land base was known as the Papagueria and it had been home to the O'odham for thousands of years.

From the early 18th Century through to the present, the O'odham land was occupied by foreign governments. With the independence of Republic of Mexico, O'odham fell under Mexican rule. Then, in 1853, through the Gadsden Purchase or Treaty of La Mesilla, O'odham land was divided almost in half, between the United States of America and Mexico.

According to the terms of the Gadsden Purchase, the United States agreed to honor all land rights of the area held by Mexican citizens, which included the O'odham, and O'odham would have the same constitutional rights as any other United States citizen. However, the demand for land for settlement escalated with the development of mining and the transcontinental railroad. That demand resulted in the loss of O'odham land on both sides of the border.

Following the Plan de Iguala, O'odham lands in Mexico continued to decrease at a rapid rate. In 1927, reserves of lands for indigenous peoples were established by Mexico. Today, approximately nine O'odham communities in Mexico lie proximate to the southern

edge of the Tohono O'odham Nation, a number of which are separated only by the United States/Mexico border.

On the US side of the border, the Gadsden Purchase had little effect on the O'odham initially because they were not informed that a purchase of their land had been made, and the new border between the United States and Mexico was not strictly enforced. In recent years, however, the border has come to affect the O'odham in many ways, because immigration laws prevent the O'odham from crossing it freely.

In fact, the US-Mexico border has become "an artificial barrier to the freedom of the Tohono O'odham... to traverse their lands, impairing their ability to collect foods and materials needed to sustain their culture and to visit family members and traditional sacred sites." O'odham members must produce passports and border identification cards to enter into the United States.

On countless occasions, the US Border Patrol has detained and deported members of the Tohono O'odham Nation who were simply traveling through their own traditional lands, practicing migratory traditions essential to their religion, economy and culture. Similarly, on many occasions US Customs have prevented Tohono O'odham from transporting raw materials and goods essential for their spirituality, economy and traditional culture. Border officials are also reported to have confiscated cultural and religious items, such as feathers of common birds, pine leaves or sweet grass.

The division of O'odham lands has resulted in an artificial division of O'odham society. O'odham bands are now broken up into 4 federally recognized tribes: the Tohono O'odham Nation, the Gila River Indian Community, the Ak-Chin Indian Community and the Salt River (Pima Maricopa) Indian community. Each band is now politically and geographically distinct and separate. The remaining band, the Hia-C'ed O'odham, is not federally recognized, but reside throughout southwestern Arizona. All of the groups still speak the O'odham language, which derives from the Uto-Aztecan language group, although each group has varying dialects.

Toe-no Ode-um? No. What's right? We couldn't tell ya. We found four different pronunciations from people who supposedly researched this: Taw-haw-naw aw-aw-dham, Taw-haw-naw aw-aw-tham, Toe-HOE-noe aw-aw-TAHM, and Toe-HO-no AH-tomb. We give up.

Yes, I looked it up under the guise of know your neighbor/enemy. While I don't expect an attack, I didn't anticipate Yellowstone, the San Diego nuke or the Comet. What can I say, stuff happens and, *would you rather have it and not need it, or need it and not have it?* I've also read *Improvise, Adapt, Overcome* and *Those who cannot remember the past are condemned to repeat it.*

## The Dome II – Chapter 19

I went back and reread my journal after Ginger made the comment she did. I did ask about the kids' vaccinations but that's the last time I mentioned them. What can I say, things to do, places to go, people to see, things to buy and sell. I also noted that I wrote down singlewides when all the manufactured housing was Fleetwood Beacon Hill Series D doublewides with 3 Bedrooms, 2½ Baths, Approx. 2,280ft<sup>2</sup>.

Here we are seven months later and we have everything/one bought, installed, delivered or hired and the alfalfa check this month will pay off the credit line and pay the estimated taxes. Remember, in this life, there are only two things you can't avoid: death and taxes. All that God can do is bring me home or send me to the other place; the IRS can take the ranch.

I didn't mention the new President... his name is not Clinton and he favors repeal of Obamacare. We paid 100% of the health insurance premiums for our employees and said phooey on Obamacare. We're actually paying less per employee than they would have to pay to get Obamacare.

As a country, we've had a few bad moments (Presidents) in my opinion. Martin Van Buren, Millard Fillmore, James Buchanan, Ulysses S. Grant almost made my list but he did what he could to rebuild the nation after the Civil War, William Howard Taft (created income tax), Woodrow Wilson, Herbert Hoover doesn't make the list because he was a victim of circumstances, Franklin Delano Roosevelt... need I say more, Lyndon Baines Johnson with one positive and uncountable negatives, Richard M. Nixon who was okay but was in fact a crook, James Earl Carter a good nuclear engineer who was poor at running the country, William Jefferson Clinton who had zipper problems and our previous President, the Kenyan who couldn't do anything right. It's a shame that Robert Edward Lee wasn't President, I think he would have been a good one. Biased? No doubt, but you didn't see that many Democrats on the list.

This Republican vs Democrat fighting is getting old. People are elected to serve their constituents, not the other way around. When I mentioned the possibility of fighting our neighbors, Ramón doubled the ammunition orders and took over the ordering from Buffalo Bore. He even had one individual melting the wheel weights and casting the 255 grain .45 Colt bullets and 405 grain .45-70 bullets. I sure hope that truckload of Pyrodex and the two kinds of primers store well.

I didn't mention that the Warehouse is climate controlled at 50°F. Walton Feed was the source of that recommendation; they say 60° or lower. We only bought a few things from them and it was all bulk bags because we couldn't locate a cheaper source. Hot Chocolate comes to mind along with various bread, muffin and desert mixes. The powdered whole milk was available from The Great American Spice Company; unsure if it was the best choice I pawned off the selection to Ginger.

She ordered several different whole milk powders and finally selected one imported from China. I'd seen the product and dismissed it specifically because it was made in China. The kids liked it and with 5 remaining cans of the product, she shared it with all ranch families. The approval rate was 85% when compared to the other products.

We still had 30-35% of the Warehouse unused and Ginger added more quart, pint and jelly jars and the Tattler lids and rings. The chain linked liquor section was so full, she stopped adding to it. It began to look like clear sailing until the radical Muslims started round 2.

If you recall, round 1 started with them dropping a section of the I-80 Bridge in Davenport, Iowa. That was followed in no particular order with the dropping of the I-90, I-70, I-40 and I-10 Bridges. The last bridge taken down was the I-5/Highway 14 Bridge on the northwest end of the San Fernando Valley. We waited with baited breath to see which bridge went down next. Instead of dropping additional bridges or attacking pipelines, they set off a 5 megaton warhead on Harbor Drive in San Diego wiping out North Island and sending fallout our direction.

The Trans Canadian Pipeline had been stopped in its tracks by a Nebraska judge and 3 years later, the present time; it had worked its way up to the US Supreme Court docket. Also before the Supreme Court was Heller II challenging the changes in law DC implemented in the wake of District of Columbia v Heller and MacDonald v Chicago. Most of us were thrilled with Heller because it said the Right to Keep and Bear Arms was an Individual Right and McDonald adding frosting to the cake stating the right applied to the individual states, counties and cities.

Heller II was, as noted, filed in response to DC changing their laws to circumvent Heller. And Chicago pretty much copied DC. McDonald either hadn't challenged the law changes or was waiting on Heller II. The Nebraska case was heard first and the SCOTUS reversed the district court and denied a rehearing. They just might get that pipeline built yet.

Heller II was the last decision reported by the court and the Court not only held for Heller a second time, they ruled the FOPA of 1986, the Gun Control Act of 1968 and the Miller decision violated the Constitution. Two judges had waited for Osama Obama to be replaced by a Republican House, Senate and President. From outward appearances, guns rights had been fully restored.

The significance of Miller was upholding the National Firearms Act of 1934; the Gun Control Act of 1968 eliminated, among other things, the mail order sale of firearms and the Firearm Owners Protection Act of 1986, intended to restore a portion of the laws changed by the Gun Control Act of 1968 had that last minute change referred to by most as the Hughes Amendment which eliminated civilian sales of automatic weapons not registered on the National Firearms Registry as of the effective date of the law, May 19, 1986. McDonald wouldn't be able to file a second case as long as cities and states followed the clear mandate dictated by SCOTUS.

The price of select fire firearms and suppressors fell virtually overnight because the ruling included the McDonald decision that the ruling applied to all states, counties and cities. For the first time since our acquiring the H&K firearms, they became legal for us to own. We dug out the Crystal to celebrate. Surprisingly, class 3 dealers weren't particularly upset with the decision because they already dealt in class 3 firearms for Law Enforcement. Obviously the SCOTUS was tired of focusing on firearms laws. And, at worst, they wouldn't have to hear those types of cases for a minimum of 4 years.

The dealer in Phoenix who had been our primary supplier of the H&Ks called and asked if we'd be interested in more of the rifles. I told him we would on the condition he could supply enough of the AG-C/EGLM grenade launchers. He jumped on that saying the launchers weren't destructive devices but he couldn't supply the 40mm grenades. I told him we'd simply have to find another source and would settle for the launchers and the number of rifles to bring our total to 112 each of the 416 and 417s.

Maybe the government with their buying power can get the price down to \$600 a pop, but the best price he could offer us was \$1,500 each plus the cost of the magazines. I told Ramón to increase the 168 grain 7.62x51mm and 62 grain 5.56x45mm to ensure 6,000 rounds for the HK416s and HK417s and keep his eyes open for more the 40mm grenades, especially the M433s, M397A1s and M583A1s.

The times were a changing...

He asked if we wanted all Black Hills and I suggested Lake City M80 and M855 for practice and the Black Hills as duty ammo. I also told him to hold off ordering until I checked the checkbook. A quick glance revealed we had enough money for the rifles, grenade launchers and the ammo and I gave him the go ahead.

Gold had slipped back down to ~\$1,650 and we replaced the gold used to buy the last batch of H&K rifles plus a little extra. We had enough gold and silver now that we were forced to use the Trust vault for the silver and the class 3 vault for the gold. No matter, there were gun safes on the first and second floors of the dome and after moving the firearms we moved the silver to the now empty vault. These were the oversized and overpriced Fort Knox gun safes. We stored the ready ammo on the top of the safes.

Ginger took it upon herself to order the X Products 50 round drums and Checkmate Industries 25 round magazines. The little bump in the road had been smoothed over as we received the firearms for the kids. We also started James on his riding lessons on a stock horse, fully intending to move him to a Barb gelding when the time came. I was thinking maybe 2 years while Ginger was figuring 1 year to 18 months.

Hank pointed out that we were getting deliveries of alfalfa pellets on a monthly basis and suggested second grain bins for each of the products we used. Ginger agreed and I gave him the go ahead. The grain bins were about the least expensive building on the ranch.

“Cal, are you ever going to sell any horses?”

“I hadn’t planned on it Hank.”

“We up to nearly 200 head and 3 farriers to keep their hooves in good shape.”

“You added more housing for the farriers I assume?”

“This place is taking on the appearance of a Fleetwood sales lot.”

“Is there anything wrong with the homes we selected?”

“No, they’re more than fine. But if you add more people, we’re going to need to start a second row.”

“That new shelter has the capacity for up to 100 people and every building including the garages is connected by the underground tunnels. We have 10 banks of submarine batteries, 10 50kw wind turbines and enough PV panels to generate another 100kw. Even the Power House is accessible via tunnel.”

“I know. You’re still farming 3 sections, though, and unless you want the income to fall off, you should buy those 2 half sections the BLM has for sale. They would keep us about even.”

“I haven’t been following land sales, how much do they have on the market?”

“The 3 sections backing your 3 sections.”

“So, we could add 2 sections of alfalfa and a section of pasture?”

“You can and if you’re short on cash, there’s always that line of credit.”

“I hate using that.”

“So you’ve said. But I’m telling you it would be smart to act while the iron is hot. We’re going to need to expand the horse pasture anyway and this might be the best way to do it.”

“We won’t be cutting into the Tohono O’odham Reservation will we?”

“No, there are several sections between us and the Reservation.”

“Ok, look into it and get me a price.”

“Ginger, Hank pointed out that the 2 half sections and the full sections behind them are on the market by the BLM.”

“I thought you didn’t want to expand the ranch.”

“I didn’t. As he pointed out, we’re running out of space for pasture and since the herds have grown, we simply need more space.”

“How much?”

“I don’t know and have him looking into it.”

“Do we have the money?”

“Like he pointed out, if we don’t we have the line of credit to fall back on.”

“Does he have any idea of the interest rate the bank charges for using the line of credit?”

“I doubt it. I suppose we could put 20% down and go for a conventional short term mortgage.”

“I’ll buy that. Most of the things we bought using the line of credit cost well more than they were worth.”

“You realized that we’ll have to put in more of that horse fencing plus maybe 6 miles of regular fencing.”

“Plus 3 12 inch wells.”

“Right. When you bought the STS and LTS foods for the new shelter, how many people did you buy for?”

“Forty-two, just like you told me.”

“The new shelter will support 100 people.”

“So you want 10 years for 58 additional people?”

“Unless you disagree.”

“We’re going to need to hire more people if we double the size of the ranch.”

“How many more doublewides?”

“Best guess, 15 or 16.”

“Can you work another deal on 16 more?”

“Yes, but it won’t be cheap. Besides the homes, we need more PV panels, upright freezers, communications gear, more garages and additional tunnels. I might be able to squeeze in a twelfth battery bank and another 50kw generator. Between the 10 wind turbines and the additional PV panels, the generators are essentially used to recharge the batteries.”

“You’d better add 5 more wind turbines since you didn’t when we added those last 12 homes. I take it the 11<sup>th</sup> battery bank was for extra PV panels. And, I think another 40,000 gallon tank of untaxed diesel would be in order. You’d better add another relay rack of inverters.

“I sure never thought we’d end up with what we have and are expanding to include.”

“Talk to Daddy, he started with a quarter section. Say, did we license all 32 channels?”

“Twenty-eight, you dad has the other 4 channels licensed.”

“I know, but they’re licensed for Missouri. I’ll get that done.”

Andy was doing fairly well on the Missouri farm. They’d added a shelter and 5 year supply of LTS food for 20 people. Since the farm was still a single section he only had the one hired man. He’d generally call once a month and talk to his parents and Ginger. After his heart attack Bob had followed his doctor’s orders exactly and got the required exercise, maintained the recommended diet and except for aging was the picture of health.

Alice took the responsibility for helping with raising the kids and since she had been a teacher in Missouri before marrying Bob, home schooled them. At the present they were about one grade ahead of their peers. The home schooling wasn’t extended to the employees because it would have made too large of a class size and covered several grades. She was using the textbooks used by the local school and our library included the last published edition of the *Encyclopædia Britannica* and computer access to the online version plus Wikipedia, of course.

I didn’t bother Bob because he was on the radio getting caught up on the latest news. It turned out I didn’t need to check with him, he checked with me with some surprising news.

“Do you have any last minute things you were planning on doing Cal?”

“Something up?”

“Rumor mill stuff, but if it’s true, it’s a real attention getter. Word has it that all 5 type 94 Chinese subs have disappeared and if that weren’t bad enough, all 3 of the block I Borei class and the 3 commissioned block II Borei class disappeared last week. Both the Chinese and Russians have replenishment ships under sail.”

“Ginger and I were talking about adding 5 more wind turbines, another battery bank, inverters and what we presume would be the final 16 doublewides. There’s also the food and what not relating to additional employees. We’re thinking of buying the two half sections and 2 full sections behind the ranch from the BLM.”

“How fast can you get that done?”

“That depends on Fleetwood, and the alternate power dealers.”

“No, I meant the land.”

“Hank is working on it.”

“He’s a good one, that’s for sure.”

“We’d probably use the same fencing contractor we used originally. They were good. The reason for the expansion is our horse herd. They need more pasture and the cattle herd is going through the alfalfa reducing the amount we can market. The cattle, hogs and alfalfa are our principal sources of income. I’m sure you noticed our moving the firearms up into the gun safes to free the second vault. We’re storing the gold and silver in separate vaults now.”

The doublewides could only be built so fast, but there were already a few in inventory at Hemet, CA. The BLM land was in escrow and being a cash sale would close quickly. The alternate power dealers were waiting for the concrete to cure before erecting the 5 new turbines. Jacob had poured the bases using an accelerator and fiberglass. The relay rack of inverters/charge controllers was installed and connected. The utilities were also installed for the new homes, six of which were being setup with six more in transit and the last four under construction.

Ginger had the last four business band channels licensed for the frequencies we were already using and the additional food and supplies were in the Warehouse along with the upright freezers. I’d even managed to add the 40,000 gallon tank of untaxed diesel and fill it along with another 30,000 gallon refurbished propane tank filling it and topping off all of the other fuel tanks. This time we added an extra quantity of PRI products. The only fuel we were ‘short’ on was gasoline, having only the 20,000 gallon tank.

Once we had the additional 1,280 acres of alfalfa in production, we’d have the line of credit paid off in no time. And, if push came to shove, we could sell some gold. Ramón had been reevaluating the ammunition situation and was recommending increasing the quantities for the rifles from 6k to 10k duty rounds with appropriate adjustments to the

other ammo and adding a bunch more of Lake City overruns. The entire package of firearms for our children was in hand and stored in yet another Fort Knox gun safe. With the firearm purchases, accessories like holsters, gun belts, scabbards, universal cleaning kits, spare parts, magazine rebuild kits, etc. were on hand.

As far as the strictly military items, we'd have to get by with what we had on hand... World War Seven. Furthermore, it would be a very long time before we dug out the cast bullets, Pyrodex and primers. I think I see a little bit of what Ginger was getting at when she compared me to TOM. We had more firearms and ammo than he ever thought of having.

The NWS SAME radios remained quiet and every day of quiet brought us just that much closer to being ready for come what may. We'd had to deal with the fallout from one nuke and had managed. What would it be like if Russia and China dumped, what was it, 800 Chinese warheads and  $3 \times 16 \times 6$  plus  $3 \times 20 \times 6 = 648$  warheads. That added up to  $800+648=1,448$ . That was too damn many. North Korea was famous for scare tactics, what if China and Russia had adopted those same tactics? They could slip one sub into port at a time, do a crew swap and replenish, probably in a span of a few days tops.

We still didn't have many of the P-8A sub hunters deployed. The way the MAD works, you get a lot better reading if the detector is parallel to the course of the sub. *To reduce interference from electrical equipment or metal in the fuselage of the aircraft, the MAD sensor is placed at the end of a boom or a towed aerodynamic device. Even so, the submarine must be very near the aircraft's position and close to the sea surface for detection of the change or anomaly. The size of the submarine and its hull composition determine the detection range. MAD devices are usually mounted on aircraft.*

The P-8A Poseidon was supposed to be better than the P-3C Orion. In mid-2008, the Naval Air Systems Command (NAVAIR) deleted the requirement for the P-8A to be equipped with magnetic anomaly detection (MAD) equipment in an effort to reduce weight by 3,500 pounds (1,600 kg) to improve range and endurance. The Russian and Chinese subs were supposed to be state of the art (Chinese art) and the Russians had built the Titanium hulled Alfa submarine with a diving depth of 800 meters and 41 knots submerged. The later Akula (NATO designation) could dive to about 550 meters and run at 35 knots. We won't talk about the Hotel class K-19 or the class Oscar II class Kursk K-141. Like Ginger said, "you're batting 600, nobody's perfect."

The downside to the rumor mill is that what's happening changes on a daily or even hourly basis. All we could do was continue to work on our plans. The 3 new sections were graded relatively flat and received the first application of manure. The fence contractor and well driller were brought in to install  $5\frac{1}{2}$  miles of fence and 3 additional wells. The electric well pumps relied on inverted 48vdc stored in a bank of 6 8volt AGM batteries powered by a PV array with a backup generator to recharge the batteries as necessary. This fence was  $\frac{1}{3}$  cedar posts and  $\frac{2}{3}$  T Posts. We specified 4 strands of barbed wire, primarily to denote the property lines.

When the fencing contractor finished he moved up front and replaced some of the hog wire and barbed wire with the 60 inch horse fencing. The horses got the 540 and the hogs and cattle a full section. Aside from the growing homestead, the remainder went into alfalfa. We were now up to 4 sections of alfalfa and it proved to be more than our customer could use. It took a bit but we found another alfalfa customer who would take the balance. I started to think about market saturation; it's possible to have too much of a good thing.

While it's not possible to stop worrying or wondering what we overlooked, we kept tying up loose ends. We had 240 submarine batteries and no spares. One dead battery would eliminate that bank. So we got an additional 24 submarine batteries with the acid stored separately and 16 spare charge controller/inverters and 4 pallets of the 300kw PV panels. That Warehouse was over built by a factor of 2.

Ginger now had the recipes and ingredients to bake commercial bread, hamburger and hot dog buns, and a small commercial bread slicing machine with plastic bags and twist ties. The buns would have to be hand cut. As loyal as we were to Hormel, Oscar Mayer got their piece of the pie in the form of lunch meats and hot dogs. She preordered from a Tucson Supermarket and we used the bread freezer for the lunch meats and hotdogs, baking bread and buns as needed. Juan's wife made flour and corn tortillas.

## The Dome II – Chapter 20

“Well, what do you think?”

“I could get used to the whole wheat bread and buns.”

“We could buy bread flour in 25 pound bags at Wal-Mart and probably in hundred pound bags from Costco.”

“But, don’t you have to keep it frozen to avoid it getting rancid or buggy?”

“Yes, you do. We’d have to put in a huge walk-in freezer to store the flour. In the end, we’d still be eating whole wheat bread and buns.”

“No, forget that; it’s just one more expense and one more thing to worry about. The stored wheat will last the rest of our lives won’t it?”

“It sure will. I was just checking.”

“These are really good with the onion, tomato and lettuce. Is there any way to ensure we’d have those things year round?”

“Yes, it’s not a problem. TOM mentions Texas Greenhouse Company in several stories. I think they make a unit 30 feet wide that you can add to the length and get it up from 60 to 90 feet or even 120 feet.”

“I don’t see us growing coffee or tea.”

“There more than enough room in the Warehouse to store 2 or 3 truckloads of Folgers Classic and all the Bigelow tea we could drink in a lifetime.”

“Can you handle that?”

“Do we have the money in the checking account? I hate paying those interests rates when we use the line of credit.”

“Absolutely. I’ve been accumulating money in the checking account to buy more gold and silver. It’s probably a good idea to spend it whether it’s on coffee and tea or gold and silver.”

“I get on it first thing tomorrow Cal. You know, it’s strange but I’ve never seen Jerry recommending any greenhouse company by name. In *True Terror* he mentioned the company that fashioned the domes and the company in Kansas City but never by name.”

“You know, I sometimes think they edit each other’s stories. But, other times it seems obvious that they don’t.”

“If we only knew, huh?”

“Who do you like best?”

“That depends on the story and what your favorite firearms are. TOM is like you and a M1A fan while Jerry likes the PTR-91. Jerry likes the Glock and the semi-auto Remington shotgun and TOM favors M1911s and Browning Hi-Powers plus the Mossberg shotgun. In the firearms department, you’re obviously a TOM affectionato.”

“And both like the Walther PPK for hideout guns; although, from time to time, Jerry goes with the modern derringers. Did you ever notice that the 3 brands of cigarettes we have 1,200 cartons of each are the brands that TOM smokes or smoked at one time, Pall Mall, Marlboro and Kool?”

“I wonder how long it would take him to go through our smokes.”

“Best guess, 3,600 weeks or 50 years. I’ll help with dishes.”

“Better yet, make sure the kids have their baths and get ready for bed. You might want to shower yourself.”

“In a mood are we?”

“Always.”

Yee-Haw.

I must be in much better physical condition, I was tired this morning. We had good hired hands so there wasn’t all that much for me to do on a daily basis. Check with Hank and Ramón to get status reports on the alfalfa and livestock and if there were any security issues. Same old, same old. This morning, Ramón had a suggestion and he just wouldn’t let it go.

“Cal, we’d up our security by several orders of magnitude if we either erected a berm or added a concrete wall around all 6 sections. I’d favor the berm and we could use soil from just outside your property line. That would have three benefits; one, we’d have a barrier not easily penetrated; two, the ditch created by removing the soil would effectively make the berm twice as tall; three, and finally, we could fill the ditch with water and grow those fish like they do up in Phoenix in the canals.”

“We already grow Blue Tilapia in the pond, Ramón. We have plenty of duckweed seed stored in the Warehouse. In fact our initial batch of fish came from Phoenix. You’re talking about a canal that would be 10 miles long and would have to be sealed to prevent the water from draining into the very porous sand surrounding the ranch. We used Ben-

tonite to seal the pond and it wasn't cheap. Finally, I'm not sure it would be a good idea to dig a ditch on land we don't own."

"So the answer is no?"

"The answer is maybe, it would need to be a family decision. Hank what do you think?"

"I see merit in Ramón's suggestion and agree with your concerns."

Walking back to the Dome, I realized that Hank had carefully avoided the question. It wasn't that we didn't have the fish; we had to harvest them on a regular basis to maintain growing room in the pond. We harvest the entire pond about every six weeks using a 3½ inch net. Three of our hands who mainly worked on the alfalfa field were hire specifically because they could fillet at least 60 fish per hour into boneless fillets. Our diet was very balanced although the Blue Tilapia was low in Omega 3 fatty acids.

So, over lunch, I brought up Ramón's suggestion. Bob objected immediately on the basis that you don't build any structures on other people's land. Alice nodded while he was explaining his position in a rather heated voice. Ginger asked three questions: how long would it take, how much would it cost and where could sell the fish fillets?

I told her I didn't have an answer to any of the three questions and asked if she would be interested in looking into it. She said she might after she got the coffee and tea ordered and checked the bank balance. One thing I haven't mentioned is how long it takes to harvest 4 sections of alfalfa. It's pertinent here because the checks from the two companies came in on average slightly over two weeks apart. The other concern was harvesting and filleting the fish. That could turn into a continuous project with a ten mile canal.

It was a 3 Excedrin moment. I advised Ramón that afternoon that the family had discussed it over lunch and that Ginger was going to look into it as soon as she completed her current project and that the current project wasn't time consuming. He'd know when it was completed when the semis arrived. I also pointed out that due to the expansion of the ranch we were receiving the same amount of money twice as fast. What I didn't tell him was that the gold vault was full and I was going to have to find another place to store the silver and use the second vault for more gold.

"Jacob, I have a small project I need completed most ASAP."

"What now Cal?"

"Anther vault off the basement wall and make it triple the size of the two current vaults."

"You have that many guns?"

"No we don't have that many guns (we have more), I need a place to store valuables."

“But just one vault door, right?”

“Right.”

“We’ll order the door and I’ll send a crew down when it comes in. Do you want it twice as wide or twice as deep?”

“Three times as wide.”

“Ok, I’ll check our copy of the blueprints.”

“I didn’t know you had a copy of the blueprints.”

“I put in the basement and kept of file copy of those. And one day when I drove down to see how the dome construction was coming along, I got a spare set from Monolithic. We’ve either constructed everything else or supplied the concrete so I have blueprints.”

That decided that; we’re putting in a berm and ditch and someone else is going to fabricate the sole gate and supply the concrete for the wall tying the berm into the gate. In fact, I think after the wall is poured and sets up, we’re going to build the berm over the wall and right up to the gate posts. Thank God the homestead was set back 80 feet from the road. That was the little lane where we took out those Muslim Terrorists.

I made a quick calculation of the volume of soil to be moved based on a canal 10 feet deep by 10 feet wide by 52,800 feet long and the volume was 52,800,000 cubic feet or in concrete terms 1,955,556 yards rounded upwards. Heck, call it 2 million cubic yards. The property of swelling on contact with water makes sodium bentonite useful as a sealant, since it provides a self-sealing, low permeability barrier. It is used to line the base of landfills to prevent migration of leachate, for quarantining metal pollutants of groundwater, and for the sealing of subsurface disposal systems for spent nuclear fuel. Similar uses include making slurry walls, waterproofing of below-grade walls, and forming other impermeable barriers, e.g., to seal off the annulus of a water well, to plug old wells.

Bentonite can also be “sandwiched” between synthetic materials to create geo-synthetic clay liners (GCL) for the aforementioned purposes. This technique allows for more convenient transport and installation, and it greatly reduces the volume of bentonite required. The ionic surface of bentonite has a useful property in making a sticky coating on sand grains. When a small proportion of finely ground bentonite clay is added to hard sand and wetted, the clay binds the sand particles into a moldable aggregate known as green sand used for making molds in sand casting. Some river deltas naturally deposit just such a blend of clay silt and sand, creating a natural source of excellent molding sand that was critical to ancient metalworking technology.

It is also used to form a barrier around newly planted trees to constrain root growth so as to prevent damage to nearby pipes, footpaths and other infrastructure. Farmers use bentonite to seal retention ponds. We're ranchers, not farmers. But are we, really? We grow vast herds of cattle and hogs and 2,560 acres of alfalfa. Maybe we're farmers but not grain producing farmers. How many crops of corn or soybeans could we grow this close to The Sonoran Desert?

Let me tell you more about where we live. Eloy is a city in Pinal County, Arizona, United States, about 50 miles northwest of Tucson and about 65 miles southeast of Phoenix. According to 2005 Census Bureau estimates, the population of the city is 10,855. According to the US Census of 2000, the city has a total area of 98.9 square miles (256 km<sup>2</sup>). The city offers a varied range of community facilities for its citizens. Outside the city limits, the city has a planning area of almost 560 square miles (1,500 km<sup>2</sup>).

As of the census of 2011, there were 16,964 people, 2,492 households, and 1,988 families residing in Eloy. The population density was 144.8 people per square mile (55.9/km<sup>2</sup>). There were 2,734 housing units at an average density of 38.1 per square mile (14.7/km<sup>2</sup>). The racial makeup of the city was 58% Hispanic or Latino, 5.32% Black or African American, 41% White, 4.48% Native American, 1.20% Asian, 0.11% Pacific Islander, 31.48% from other races, and 4.71% from two or more races.

There were 2,492 households out of which 50.1% had children under the age of 18 living with them, 49.4% were married couples living together, 21.9% had a female householder with no husband present, and 20.2% were non-families. 15.5% of all households were made up of individuals and 6.3% had someone living alone who was 65 years of age or older. The average household size was 3.57 and the average family size was 3.94.

In the city the population was spread out with 33.7% under the age of 18, 12.0% from 18 to 24, 32.5% from 25 to 44, 15.4% from 45 to 64, and 6.4% who were 65 years of age or older. The median age was 28 years. For every 100 females there were 137.1 males. For every 100 females age 18 and over, there were 154.8 males.

The median income for a household in the city was \$26,518, and the median income for a family was \$28,494. Males had a median income of \$25,295 versus \$21,088 for females. The per capita income for the city was \$9,194. About 27.9% of families and 31.9% of the population were below the poverty line, including 35.6% of those under age 18 and 24.6% of those age 65 or over.

The largest employer is Corrections Corporation of America (CCA), and those CCA prisoners are included in the census. As of 2010 the CCA-operated Saguaro Correctional Center, located in Eloy, houses the majority of Hawaii's male prison inmate population.

The Eloy Elementary School District provides elementary education in grades K through 8 through its four schools:

Curiel Annex School (preschool and kindergarten)  
Curiel Primary School (grades 1 through 3)  
Eloy Intermediate School (grades 4 through 6)  
Eloy Junior High School (grades 7 and 8)

The one high school in the town, Santa Cruz Valley Union High School, is separately administered. It has about 440 students.

While we grow alfalfa and livestock, the largest crop grown in the area is cotton. Yep, King Cotton! This was yet another vote against a ditch and berm. As much I hate to think about it, the ditch and berm are going to have to be on our property. That didn't mean removing all those new fences because the canal would probably be classified as an attractive nuisance and those 4 strands of barbed wire would remain in place. We have to move the 60" horse fencing and replace it with more barbed wire outside the new canal.

And, when I gave it further consideration, I realized we had too much horse fencing and could store the extra for repairs as needed. Better contract the fence removal and putting in the barbed wire. But, that would have to wait until the canal was dug and lined.

After the coffee and tea were delivered and stored in the Warehouse and the greenhouse erected, I contracted for the ditch and berm. It simply made more sense to use a single contractor to build both. I had him start inside the new 5½ miles of barbed wire and promised an early completion bonus. We lost a few acres of alfalfa land but we both agreed it was worth it for the increased level of protection. Now, they'd need bombers or warheads to get inside the ranch.

But drones were in the news nearly every day and with 155mm artillery shooting the M982 Excalibur rounds we might be in trouble. Excalibur has a range of approximately 40 to 57 kilometers (25 to 35 mi) depending on configuration, with a circular error probable (CEP) of around 5 meters (16 feet) to 20 meters (66 feet). Excalibur is compatible with the United States M109A6 Paladin self-propelled 155 mm howitzer, M198 howitzer and M777 Lightweight Howitzer.

There was also the M712 155mm Copperhead cannon-launched, fin-stabilized, terminally laser guided, explosive projectile intended to engage hard point targets such as tanks, self-propelled howitzers or other high-value targets. It may be fired from different artillery pieces, such as the M109A6, M198 howitzers and M777 Lightweight Howitzer. The projectile has a minimum range of 3 km and a maximum range of 16 km. (The M198 is being replaced in US and Australian service by the BAE M777 howitzer.)

It seems that with an active mind focused on *What Ifs* a person can imagine a lot of things which is probably why there are 180+ items of things that can happen on Jerry's list. Does TOM have a list? I bet he has copy of Jerry's. TOM primarily only has one

thing on his list, GTW. Can you imagine looking out your barracks window and seeing 12 B-47s in a shotgun area with 2 nukes apiece aboard? That was 1962 and we're in late 2017 and it hasn't happened, yet. That's 55 years...

Plus, there is nuclear disarmament; unilateral by the US, but still... it's disarmament.  $19+55=74$ , TOM's age assuming he's still out there in the People's Republik. The funny thing about him moving from Iowa to California is that he didn't gain anything. Iowa's gun laws are almost as bad as California's. Except Iowa became a shall issue state despite opposition from an estimated 99 Sheriff's and untold Police Chiefs.

I had to say an estimated 99 Sheriff's for 2 reasons; I'm from Arizona and what do I know about Iowa politics; and, Iowa has 99 Counties and I assume 99 County Sheriff's. I wonder how many of them are named Joe. Is he old enough to retire yet? I'm bored; maybe I should go out and watch the alfalfa grow.

"How many cans of coffee do we have now?"

"Cal, I didn't count them, but the trailers were 53 foot trailers and full. We move the old coffee forward and widened the row a lot by moving the existing supply of tea to a different location where we had room for both the old tea and the new tea. That was a 53 foot trailer too. Looking at the pile of tea, I realized we should have bought 2 truckloads. Anyway I called Bigelow and told them to send another truckload identical to the one we received."

"Ok, I guess if you say so. They're making great progress on the ditch and using the soil to build the berm. With those machines they're using, they're constructing a few hundred yards of berm daily. The berm isn't quite as high as the ditch is deep so I've a few of the hands creating a shelf, for want of a better term, to stand on.

"In medieval military engineering, a berm (or berme) was a level space between a parapet or defensive wall and an adjacent steep-walled ditch or moat. It was intended to reduce soil pressure on the walls of the excavated part to prevent its collapse. It also meant that debris dislodged from fortifications would not fall into (and fill) a ditch or moat. In the trench warfare of World War I, the name was applied to a similar feature at the lip of a trench, which served mainly as an elbow-rest for riflemen.

"In modern military engineering, berm has come to mean the earthen or sod wall or parapet itself. The term especially refers to a low earthen wall adjacent to a ditch. The digging of the ditch (often by a bulldozer or military engineering vehicle) can provide the soil from which the berm is constructed. Walls constructed in this manner are an effective obstacle to vehicles, including most armored fighting vehicles, but are easily crossed by infantry. Because of the ease of construction, such walls can be made hundreds or thousands of kilometers long.

"Berms are also used to control erosion and sedimentation by reducing the rate of surface runoff. The berms either reduce the velocity of the water, or direct water to areas

that are not susceptible to erosion, thereby reducing the adverse effects of running water on exposed topsoil. Following the 2010 Deepwater Horizon oil spill in the Gulf of Mexico, the construction of berms designed to prevent oil from reaching the fragile Louisiana wetlands (which would result in massive erosion) was proposed early on, and was officially approved by the federal government in mid-June, 2010, after numerous failures to stop and contain the oil leak with more advanced technologies.

“I had a concern about erosion but decided to coat the outside of the berm with sodium bentonite useful as a sealant, since it provides a self-sealing, low permeability barrier. It is used to line the base of landfills to prevent migration of leachate, for quarantining metal pollutants of groundwater, and for the sealing of subsurface disposal systems for spent nuclear fuel. Similar uses include making slurry walls, waterproofing of below-grade walls, and forming other impermeable barriers, e.g., to seal off the annulus of a water well, to plug old wells. The property of swelling on contact with water makes sodium bentonite idea because when it swells, it become slippery, making it difficult for someone on foot to climb the berm.”

“You’ve been on Wikipedia again.”

“I had to because there are several different types of bentonite. I wanted to use the right one. Anyway the ditch isn’t square like I initially planned. It’s a bit wider at the top than the bottom and we’re going with straight sodium bentonite regardless of the expense. It should take the contractor long enough to put it in that the biweekly alfalfa payments should keep pace with the construction. He insisted on 10% down and percentage completion payment with a 10% reserve. The Bentonite contractor that lined the pond wanted 30% down with percentage of completion and the same 10% reserve, but I got him to accept 20%.”

“How much do we have invested in this white elephant?”

“I don’t know, call our accountant. Can you think of anywhere in Arizona safer than this ranch?”

“Probably not; but is it worth it?”

“It most certainly is because it provides safe haven for our family including your parents and Andy and Sheree and their kids if they can get here; plus all of our employees and their families. Not only do we generate the alfalfa income there is the income from the sale of cattle and hogs.”

“What did you have Jacobs crew doing?”

“Adding another precious metals vault.”

“I bet he has almost a complete set of prints of all the construction.”

“He does, which was the deciding factor for the canal and berm.”

Sometimes I think you’re paranoid.”

“There ain’t no doubt about it; just because your paranoid doesn’t mean they’re not out to get you. You know we bought those AN/PVS-14 Monocular Night Vision Devices. We should have bought those Enhanced Combat Helmets developed for the Corps to mount them on.”

“We have Interceptor body armor, is that best we can do?”

“The Army went to the Improved Outer Tactical Vest and The Corps went to the Modular Tactical Vest. They went with the ECH helmet although they temporarily fielded the Lightweight Helmet. I’ll talk to Ramón and see what we can come up with.”

## The Dome II – Chapter 21

1. A New Messiah
2. A new Persian Empire
3. Active shooter at public venue/business
4. Active shooter at school/college campus
5. Addictive Entertainment
6. Advanced Technology disaster
7. Agenda 21
8. Airplane crash
9. Anarchy
10. Antibiotic resistant bacteria
11. Armageddon
12. Atmospheric River storm/severe flooding
13. Automotive accident
14. Avalanche
15. Aztlan/Reconquista Uprising
16. Bank closure/failure/mandated bank holiday
17. Bath Salt drug zombies
18. Becoming a refugee
19. Becoming lost in the megalopolis
20. Becoming lost in the wilderness
21. Bee Colony Collapse Disorder / crop pollination failures
22. Biblical flood
23. Biblical plagues
24. Biological war/attack
25. Black hole appearance
26. Blackout
27. Blizzard
28. Boat wreck/ship wreck
29. Brownout
30. Carrington Event/Massive solar flare
31. Celestial object impact/near miss
32. Chemical war/attack
33. Civil war
34. Civilian disarmament
35. Cloning of dangerous plants/animals
36. Cloning of humans
37. Coronal Mass Ejection (CME)
38. Communication restrictions
39. Crime wave
40. Crop failures
41. Dam failure/collapse
42. Dangerous wildlife confrontation
43. Dark matter/anti-matter incident
44. Declining drinking water aquifer levels

45. Drinking water aquifer contamination/poisoning
46. Drought
47. Dust bowl
48. Earth Core Cooling
49. Earth orbit shift
50. Earthquake
51. Eco-system collapse
52. Electro Magnetic Pulse attack (EMP attack)
53. Electro Magnetic Pulse from coronal mass ejection or other solar activity
54. Encroachment of drinking water aquifers by seawater
55. Environmental disaster
56. Epidemic
57. Ethnic war
58. Evidence of extraterrestrials
59. Extraterrestrial biological contamination
60. Fire storm
61. Flash mob violence/criminal event
62. Flash flood
63. Food shortages/price increases
64. Forest fire/wild fire
65. Fuel shortages/price increases
66. Fungal infections of food staples crops
67. Gamma ray burst from neutron star collision
68. Global cooling/Ice Age
69. Global nuclear war (aka GTW)
70. Global warming
71. Gold/PM recall
72. Gold/PM restrictions
73. Government Tyranny
74. Grand Alignment induced tectonic activity
75. Ground surface tilt/rise/subsidence from tectonics/magma movement
76. Gulf Stream shutdown/subsidence
77. Hail
78. Hazmat incident
79. Heat wave
80. Home gardening restrictions
81. Home invasion
82. Hostage situation
83. Hostile extraterrestrials
84. House/apartment/building fire
85. Hurricane
86. Hypercane
87. Ice Storm
88. Infrastructure collapse/failures
89. Invasion of the US
90. Invasive plant and animal species

91. Kidnapped
92. Lahar
93. Landslide/mudslide
94. Large scale JIT delivery failures
95. Limited nuclear war/attack
96. Limnic eruption
97. Local major accident (aircraft/auto/rail/building)
98. Local major crime
99. Local/regional gun grab
100. Lockdown at school/college campus
101. Lockdown at work/business
102. Loss of job
103. Magnetic pole shift
104. Major conventional war
105. Major economic depression
106. Major nuclear power plant incident
107. Martial Law
108. Massive tectonic activity
109. Maunder Minimum low sunspot cycle triggered ice age
110. Medical emergency
111. Mega Tsunami (La Palma, West Antarctic Ice Sheet)
112. Mega Volcano (Yellowstone Caldera)
113. Methane Hydrate release
114. National bankruptcy/default
115. Nationwide/global economic breakdown
116. Nemesis induced Oort Cloud meteorite rain
117. New colonial activity (Fr., Sp., Port., It., Germ., Japan, China, Russia, UK, Brazil, Ven.)
118. New, more restrictive assault weapons ban
119. New World Order (NWO)
120. Out of control bio-genetics/bio-technology
121. Out of control Nano-technology/robotics
122. Overpopulation
123. Ozone layer depletion
124. Pandemic/Syndemic pandemic
125. Peaceful extraterrestrials
126. Peak oil
127. Personal financial breakdown
128. Personal/family catastrophic illness
129. Personal impact crimes
130. Pestilence
131. Political unrest/backlash
132. Pyroclastic flow
133. Racial war
134. Rainforest deforestation
135. Rampant inflation

136. Rapid Population Decline
137. Refugees
138. Regional climate change
139. Released/escaped dangerous zoo/circus animals
140. Religious war
141. Resource war
142. Rogue Military Activity
143. Rotational pole shift
144. Runaway GM food plant failure/cross contamination
145. Safe deposit box (non-bank) restrictions/closures
146. Sand/dust storms/Haboob
147. Sea level drop
148. Sea level rise
149. Second coming
150. Sentient computer(s) take over
151. Severe Lightning
152. Shipwrecked/marooned
153. Shortages of goods and services for a variety of reasons
154. Sinkholes
155. Slow rise flood
156. Social break down
157. Solar radiation increase/decrease
158. State bankruptcy/default
159. Strikes/boycotts/embargoes/price controls
160. Sub-atomic particle research accident
161. Sudden regional major population shift
162. Super-storm
163. Tailings pond dam failure/collapse
164. Terrorism of all types
165. The Anti-Christ
166. Tornado
167. Total gun ban/confiscation
168. Train wreck
169. Travel restrictions
170. Tsunami
171. UN Small Arms Treaty
172. UN/One World Government
173. US Coup
174. US revolution
175. Utilities failures
176. Vehicle breakdown/stranded
177. Volcano
178. Water shortages
179. Water system contamination/poisoning
180. Wealth redistribution (by currency exchange/tax rates)
181. Weapons restrictions

182. Weather Modification attack
183. Widespread civil unrest/riots
184. Wild animal rampage
185. World Population dramatic increase
186. Zombies/vampires/werewolves/other supernatural dangers (just kidding!)

No, I didn't ask TOM or Jerry; I found Jerry's list elsewhere. We've already experienced some of things on his list and some are closely related like a drought and water shortages. I must say that given our current building project, we should be able to avoid some of the items listed.

When I next checked the progress on the ditch/canal I noticed that the bottom was slight rounded and it seemed slightly wider than ten feet. In fact, there seemed to be a slight slope on the walls of the ditch.

"What's going on here? The ditch is wider, the sides are sloped and the bottom edge rounded?"

"Sorry Mr. Burgess, we tried it the way you wanted and were continually going back because of cave-ins. Our engineer suggested this approach and its working. You get about the same volume of soil for the berm, if not a bit more. If you're planning on sealing the ditch with Bentonite, you should have them start because that will keep the soil in place even better."

"We already have someone lined up to put in the sodium bentonite. I call him have him come take a look. How much have you completed so far?"

"Just short of 4 miles."

"Do you think you'll be able to stay ahead of him?"

"Now, yes. We're doing 400 plus yards a day with new the contour. Most of the Bentonite Contractors I know would have push to maintain that pace. Same guy do your pond?"

"Yes."

"How long did it take him?"

"Point taken; I'll get them started."

"A suggestion."

"Yes, what is it?"

“Have him apply Bentonite to the outward side of the berm and install a sprinkler system along the top to moisten the outer wall in case of trouble.”

“Oh right, it swells and gets slippery, right?”

“Right.”

I called the Bentonite Contractor and explained the changes needed and told him he could begin immediately. I'd have a check in hand the day his crew and he showed up. I wasn't surprised when they showed up the next morning around 7am. He had the new contract made out showing the increase total cost and I cut him a check on the spot before returning to my now cold breakfast.

After getting his crew started, he returned to the dome with a question. What did I have in mind for sealing the inside of the berm? I told him I hadn't planned on sealing it. He pointed out with the winds we sometimes got; I should do something to keep the soil (sand) in place. I asked if he was thinking about Bentonite and he said that would be poor idea because the same reason we were covering the outside of the berm. Besides, he said there were cheaper solutions and if I was interested, he'd look into them. Ginger nodded, so I told him to look into it.

The solution based on a protected dome:

*Spray On Plastics' Flexible Mould Skin polyurea was the perfect coating for the application. Its slow gelling time allowed the applicator to run the coating around the bumps and recesses of the concrete. What's more, since Flexible Mould Skin is a pure polyurea, it is not dramatically affected by the presence of moisture. A layer of flexible mould skin approximately 125 mils thick was sprayed over the entire dome, and was covered with 2" of polyurethane foam insulation. It was backfilled in sections to provide a level working platform for the sprayers. In the end, this system provided a complete, seamless seal that was quick to apply.*

He said his crew could apply the initial coating and he could leave an applicator and whatever quantity of the product we wanted. It would allow us to make whatever changes we wanted to the inside of the berm. He said they'd be happy to make the changes for us but he didn't think it would cost-effective, depending on what we did to the inside. It was also a long drive from Flagstaff. He had a knowing look in his eye so Ginger told him we'd follow his suggestion of making changes ourselves.

The fencing contractor noticed the pace of the excavation/berm contractor and temporarily moved the horse fence, asking where he could store the extra sections. Ginger and I decided on a quickly erected pole building with a dirt floor at the side of the horse pasture. We put down some pallets for them to stack the fence on and constructed the building around the pallets. The pallets were leftovers from arranging the Warehouse. One couldn't really see the Warehouse walls because of the pallets stacked against them 8 feet high.

The Warehouse was a commercial, 10 feet per floor, building and was about 27½ feet tall due to the double walls, I-beams to support the concrete, concrete and six feet of soil. We sealed the top of the Warehouse with asphalt. It would be cost-prohibitive to do the same with the berm. We decided to get 2 55 gallon drums of Spray On Plastics' Flexible Mould Skin polyuria along with one applicator.

The number of Vaqueros and ranch hands was close to perfect to handle those operations. We had 4 unused doublewides and everything we needed in the armory, bunker and the warehouse without buying anything else. Ginger checked the STS foods and made list of items we needed to fill in. I checked with Ramón and he smirked before he said, "World War 8." I replied, "Gee, I hope not." I asked there was anything he needed and he said, "Twelve more security people, Boss."

"Why?"

"We have 12 people running three shifts a day, seven days a week. Even God rested on the seventh day."

"We have 4 unused 3 bedroom homes. That would put the twelve new people all private bedrooms. Do you think you could come up with 12 single ex-military to fill those slots?"

"Probably. Despite the fact that our people are good, there is always ex-military looking for jobs. Okay if I put an ad in Soldier of Fortune?"

"If you aren't looking for special operation types, do it."

Our fence contractor had fenced off 320 of the 540 acre horse pasture leaving room for the construction equipment. One of our purchasers showed up with hay semis and started hauling the large round bales to their processing plant.

"How long to fill the ditch and finish off the berm?"

"They're making almost 450 yards so it won't be long. We need a gate for the driveway stout enough that it would take large Caterpillar tractor to get through it. Plus I'd like a 6' high wall extending from the gate into the berm. We'll worry about the berm after the gate is in and I'd like to see it done before the Excavation Contractor leaves so he can build the berm right up to the gate posts.

"The Bentonite Contractor is moving faster than either of us thought and he'll finish within ten days of the excavation/berm project. Get the gate constructed out of 8 inch schedule 120 pipe with 12 inch schedule 160 gate posts 12 feet long. After the gate is hung, I want 5 10 inch schedule 160 12 feet long posts added behind the gate that will go into drop in receptacles. Make the gate six feet high and the pole receptacles six feet deep. The center post should back the seam where the 2 gates come together. Get with

a plumber or a plumbing supply to determine the size pipes needed for the receptacles. Get with Ginger and draw some cash. Oh, the gate sections should 14 feet long.”

I was hoping that the excavation contractor could drill the 7 post holes and we could use Rapid Set Cement All 55 lb. Multi-Purpose Construction Material. The stuff has a compression strength of 9,000 psi. He went us one better, actually installing the 5 receptacles and the two gate poles. Actually, Ginger found a company in Tucson to fabricate the 2 gates. The suckers were heavy, forcing them to use a crane to install the 2 gates. The automatic openers must have been custom built and used 6 code settings opposed to the Stanley garage door openers 4 settings. Plus the power could be cut from multiple locations. Standard practice was to leave the gates open, power on.

## The Dome II – Chapter 22

Nobody lives forever. Bob had second heart attack. Our little clinic had Ventlab BVM with Bag Reservoirs, a case of each size with adapters to fill the bags with pure O<sub>2</sub>. We also had 2 AEDs, IV solutions and various drugs to be administered at the direction of a physician. I called a doctor in Eloy while Ginger used the AED and Ramón used the Ventlab.

When Bob's heart failed to restart after multiple blasts from the AED, Ramón took over manual chest compressions and Ginger the Ventlab bag. They kept it up for what seemed like forever. The ambulance had arrived from Eloy and the EMT told them to stop, Bob was gone. I'm glad I had 2 shoulders and that Maria had come along with Ramón, she corralled the kids with Ramón's help.

Bob wanted to be buried in the family plot back in Missouri. After the undertaker picked him up, I got on the phone to make arrangements to fly him back to Missouri. Alice used her cell phone to call Andy and give him the bad news. He offered to fly out but she told him to make arrangements for a closed casket service and get the grave opened. She recommended a local funeral home there where they lived to make the arrangements.

"Ginger I'm moving back to Missouri and will live with Andy."

"What about all your things?"

"I'll take my clothes and you take the rest. Considering what airlines charge these days for baggage, I'm only taking one suitcase and you can ship the rest of my things. Give your father's clothes to Goodwill or the Salvation Army. Everything else, Cal and you keep. Remind me to sign over the car title before I leave."

"There were no signs that I saw that Daddy was having problems."

"He hid them. There were plenty of signs. I'd see him pop a nitro and immediately reach for the Excedrin bottle. I told him that we should go to Phoenix and see that doctor and he insisted he'd be fine. Hard headed man, I swear. Still, he had a good life until the first heart attack. And after they put in the stent he seemed to be doing fine. It's just been this last year and he always denied there was a problem when I confronted him."

"Ok Mom if that's what your want; we'll do it your way."

She later revealed to Ginger that she wasn't hurting for money because they both had paid up insurance policies for \$150,000. Alice also counted out their small gold collection and gave half to Ginger with instructions to add it to the rest. She'd give Andy his half when she arrived in Missouri. We both offered to fly back with her to accompany the body and she declined, saying "stay home and take care of my grandchildren."

Andy called after the funeral and told Ginger that they'd received Alice's things. He also said that the undertaker back home had freshened up their Dad's makeup and that the funeral was open casket. Their mother was adjusting but seemed to be "lost... so lost."

Ginger gave him an accounting of the things we'd discovered when we went through their things. The only thing he asked to have was the Colt 3<sup>rd</sup> generation Single Action Army. Ginger got the name of a dealer to ship it to and took it to Tucson to a dealer to arrange shipment.

While I was researching the topic 'berm' I found one place that said 'a berm should be 3 horizontal feet for each vertical foot. I calculated that the 10 foot by 10 foot pile of soil would create a 20 foot base 10 feet high, given a sharp edge at the very top. It's easy to visualize, draw a square 10 inches by 10 inches and run a diagonal. We need a flat top to protect those of us behind the wall, leaving 2 choices; one, change the slope of the wall making it steeper, e.g. a 16 foot base that's higher and cut off flat at 10 feet; or, two, keep the wall as is and make it shorter.

With Bentonite sealing the outside surface and the Spray On Plastics' Flexible Mould Skin polyuria sealing the inside surface, we gambled and used the first choice and ended up with a flat top 10 feet high that we could use sand bags to create merlons and crenels. I'm not sure which author gave me the idea, TOM or Jerry, but I'm thinking Jerry. Do you have any idea how many sandbags it takes to create 10 miles of merlons and crenels? Furthermore, sand bags aren't cheap.

At this point in time, I was thinking, "I should have just built a concrete wall!" Of course sand bag is just a term and we'd probably fill them with common dirt/soil, presuming we did it. Thinking back, we provided the concrete for a continuous median a few years back. That concrete had an accelerator in it and the form moved continuously. Which got me to thinking about those portable medians. We'd want short pieces, maybe 5 foot long and if we left a gap between the sections, we'd have our crenels. If we left a 2 foot gap, which would make each section 7 feet and 52,800 divided by 7 is ~7,540.

A recent article in Newsweek reported that "according to a well-placed intelligence source," in 2007 Saudi Arabia began to purchase CSS-5 (DF-21) ground-to-ground missiles from China. While similar reports appeared in the past, the recently published information is distinguished by its confirmation by an official – albeit anonymous – source, and by the revelation that the Americans knew about the Saudi-Chinese deal and were involved in it. The report raises many questions about the Saudis' motivations, the implications of the deal, and the timing of the exposure.

Denied purchase of ground-to-ground missiles by the United States in the 1980s, the Saudis, unbeknownst to the United States, purchased about ten launchers and several dozen Chinese DF-3A missiles (called CSS-2 by NATO), which apparently were customized to carry conventional warheads. The missiles were stationed in a number of sites in Saudi Arabia and maintained by Chinese technicians. The covert deal led to a

CRISIS in relations between Riyadh and Washington, particularly because the missiles were originally intended to carry nuclear warheads. The CRISIS ended when Saudi Arabia agreed to join the NPT.

The DF-3A missiles were already outdated when the Saudis purchased them, and it was only a matter of time until they would seek to replace them or add more modern missiles to their arsenal. Moreover, these missiles use liquid fuel, are cumbersome to prepare for launching, and have low accuracy. And indeed, for several years there have been reports on Saudi expansion of its missile arsenal. In 2009, the existence of additional sites suspected of belonging to the Saudi missile arsenal was reported.

A book by a former CIA employee published in 2010 even claimed that in 2003, the Saudis, with the knowledge of the United States, purchased advanced ground-to-ground missiles capable of carrying nuclear warheads. Also in 2010, there were reports that the strategic missile arsenal was being upgraded and that a new headquarters was dedicated outside of Riyadh for the kingdom's Strategic Missile Force. Already then, doubts surfaced as to whether the Saudis needed the facility if they still had the old missiles.

The latest report confirms the previous ones: the Saudis did in fact purchase missiles from China, with the knowledge of the United States. According to the report, CIA personnel examined the missiles in Saudi Arabia in order to confirm that they did not carry nuclear warheads. It may be that the deal was not revealed until now because the Americans examined the missiles and were not concerned by what they found or because of a desire to avoid embarrassment on both sides. The Americans may also have understood that if they were not involved in the process, Saudi Arabia could do without them, as it did in the past, and they preferred to retain control of the process.

The Dong Feng 21 missile (East Wind 21) is a two-stage ballistic missile that uses solid fuel, which shortens the launch preparation time and makes maintenance easier. It has a range of some 1,700 kilometers and can carry a load of about 600 kilograms. It is much more accurate than the old DF-3A; it is accurate to 30 meters CEP, allowing it to attack specific targets like compounds or palaces. Its later models are also equipped with terminal guidance, which enables it to hit pinpoint targets (though it is unlikely that these later models were exported).

It is possible that the Saudis have purchased other missiles in addition to the DF-21, including other models produced in China (such as the DF-11 or the DF-15) or Pakistani-made missiles, such as one of the Shaheen series. Moreover, the Saudi efforts to acquire long range weapons have extended to cruise missiles, and the British reportedly sold the kingdom Storm Shadow cruise missiles as part of the Saudi program to upgrade its Tornado jets.

The missile has a range of some 500 kilometers (and therefore, its export is restricted under the Missile Technology Control Regime agreements). An unofficial confirmation of the sale of the missile appeared in WikiLeaks documents in 2009, and in 2013 it was

reported that in contrast to previous refusals, the United States had agreed to sell the Saudis SLAM-ER cruise missiles.

While the new missiles have a shorter range than their predecessors, they have better accuracy. This gives them a greater deterrent value in Saudi eyes, even if they have conventional warheads, because of their ability to hit government buildings, strategic facilities, and military bases in Iran. Does the presence of these missiles significantly change the military balance in the region? Not as long as the missiles are armed with conventional warheads.

The recent Newsweek report raises new questions as to the kingdom's intentions in the nuclear realm. Officials in Saudi Arabia, which is in the midst of a significant conventional military buildup, have often stated that the kingdom is focusing on a nuclear program to meet the country's energy needs and reduce its dependence on oil. However, Saudi Arabia has previously examined the military nuclear path, and to this end, has increased its cooperation with a number of countries, in particular Pakistan. It has had military cooperation with Pakistan for some years, and funded part of its nuclear program.

In addition, several unusual comments from Riyadh since 2011 have indicated Saudi Arabia's willingness to examine the nuclear path if the international community is unable to prevent Iran from attaining military nuclear capability. Because Saudi Arabia lacks an independent knowledge infrastructure, if it makes a decision to pursue a nuclear option, it will presumably prefer to purchase an off-the-shelf nuclear deterrent.

The Saudis' motivation in purchasing the missiles is Iran's progress in its missile program and the growth and improvement in its ground-to-ground missile arsenal. It is possible that the progress in the Iranian nuclear program will lead to increased Saudi pressure on Pakistan to provide the kingdom with some type of nuclear guarantees, whether through extended deterrence, the stationing of nuclear forces in Saudi Arabia, or transfer of nuclear warheads to the Saudis for installation on the new missiles (in a regulated move or by turning a blind eye).

Not only have Saudi Arabia's concerns not been mitigated by the interim agreement signed with the Islamic Republic; they have actually intensified, if only because of the agreement's significance for Iran's international and regional status. The Saudis are anxious about the Iranian buildup, and it may be that the "revelations" on its missile arsenal are part of an attempt by Saudi Arabia to make its fears public. Furthermore, the report on the American involvement comes in advance of an expected visit by President Obama to the kingdom, which *inter alia* is designed to assuage Saudi fears that current American policy endangers Saudi security interests.

In recent years, the discussion on strategic issues inside and outside the kingdom has become more public, and therefore, it is likely that further "revelations" can be expected. This is due to the negotiations with Iran and the significance Riyadh attributes to deterrent signals of this kind. The deal itself is also significant, indicating China's growing in-

terest in selling advanced weaponry to the region (and to Saudi Arabia, China's largest oil supplier), but perhaps also the weakness of America's standing in the region.

To date there is no solid evidence that Saudi Arabia intends to pursue the nuclear route, even though nuclear weapons in Iranian hands would be a grave threat to the kingdom. However, in light of its great wealth and relative military weakness, Saudi Arabia will likely seek to construct security arrangements that will lend it more independence in decision making and better chances of maintaining a stable balance of deterrence in the Gulf over time. This is because of the tension in relations with the United States and the fear that it will reduce its involvement in the region after improving its relations with Iran, which would once again turn Iran into the dominant power in the Gulf. [Yeah, right.]

It is not clear whether Israel has received any guarantees from the United States (perhaps even from Saudi Arabia) about the deals in question. Israel, as a rule, does not favor equipping an Arab state with advanced weapons that are capable of threatening it too. In the past, Israel actively opposed any such buildup. However, in recent years, given the joint Iranian threat, Israel has preferred to turn a blind eye to Saudi Arabia's military buildup (and that of the other Gulf States), which has even been perceived in Jerusalem as an advantage.

Nevertheless, Saudi Arabia's arming itself with modern ballistic missiles should worry Israel. In addition to the fact that these weapons are in the hands of a state hostile to Israel, the buildup, particularly the silence surrounding it, and the nature of US involvement, bode ill for the stability of the region and the struggle against missile proliferation.

Israel has determined that the Iranian-sponsored Hezbollah acquired an advanced Russian cruise missile. Israel Navy officers said Hezbollah has received the P-800 coastal defense system sold by Russia to Syria.

The officers said Hezbollah was believed to have already deployed the Yakhont cruise missile, with a range of 300 kilometers and capable of striking Israel's entire Mediterranean coast.

"We assume that advanced Yakhont missiles have also reached the hands of Hezbollah, and we are preparing for that," Rear Adm. Eli Sharvit, commander of the naval base in Haifa, said.

On February 24, the Lebanese and Syrian opposition sources reported an Israeli air strike on Hezbollah along the Lebanese border with Syria. The Syrian Observatory for Human Rights said the Israeli target was a Hezbollah missile base, and several people were killed.

"The missile base participated in military operations in the area of Qalamoun in Syria near the Lebanese border," Syrian Observatory said. The Israeli officers said Hezbollah deployed Yakhont in 2013 about a year after the Syrian Navy received the P-800. They

said repeated Israeli efforts to block the delivery of the weapon from Syria to Lebanon were partially successful.

In August 2013, the United States reported an Israel Air Force strike during the previous month that targeted a Syrian military warehouse near the port city of Latakia. The US Defense Department assessed that the Israeli target was the Yakhont missile arsenal, which officials determined was not destroyed.

“Hezbollah is a highly functional organization, active in its sector,” Sharvit told a briefing on Feb. 25. “It continues to arm itself with strategic weapons, and has not stopped trying to get its hands on weapons that will influence [future warfare].”

The officers said the navy was being trained and equipped to foil the Hezbollah or Syrian missile threat against Israel. They said Hezbollah could use Yakhont to attack Israel’s new natural gas facilities in the eastern Mediterranean.

“The best Iranian and Russian platforms are in the region between Syria and Lebanon, and Hezbollah’s and the Syrian military’s efforts to grow stronger do not stop,” Sharvit said. “We are on constant alert to secure our assets.”

A report out of Pravda quotes President Vladimir Putin as saying that Russia has moved strategic nuclear missiles to Cuba in response to the United States’ continuing efforts to encircle Russia in Eastern Europe.

The article, written by Lyuba Lulko, explains how Russia is reviving its military operations in Vietnam, Cuba and the Seychelles.

In October 2001, President Vladimir Putin announced that the Lourdes radio-electronic center on the island had been shut down as a “gift” to President George W. Bush on the basis of promises given by Bush that the US missile defense system would never be deployed in Eastern Europe.

However, with the missile defense system under the auspices of NATO now reaching “interim operational capability” in Europe at the end of May, that promise has been shattered.

“The Russian Federation has fulfilled all terms of the agreement. And even more. I shut down not only the Cuban Lourdes but also Kamran in Vietnam. I shut them down because I gave my word of honor. I, like a man, has kept my word. What have the Americans done? The Americans are not responsible for their own words. It is no secret that in recent years, the US created a buffer zone around Russia, involving in this process not only the countries of Central Europe, but also the Baltic states, Ukraine and the Caucasus. The only response to this could be an asymmetric expansion of the Russian military presence abroad, particularly in Cuba,” the report quotes Putin as saying.

“With the full consent of the Cuban leadership, on May 11 of this year, our country has not only resumed work in the electronic center of Lourdes, but also placed the latest mobile strategic nuclear missiles “Oak” on the island. They did not want to do it the amicable way, now let them deal with this,” added Putin.

According to the report, Cuba, which was angered by the original decision to shut down the radio-electronic center, has agreed to allow Russia to locate the missiles on Cuban territory because of its fears over new US military bases in Colombia.

Whether the quotes attributed to Putin are accurate or not remains to be seen. They appear nowhere outside of the original Pravda piece.

Once the primary mouthpiece of the Soviet Communist Party, Pravda’s influence has now declined rapidly. The online version is managed by former journalists who worked for the original newspaper but other than that the two versions are separate entities.

Speculation that Russia was re-building its nuclear infrastructure in preparation for a potential future conflict came with the news that 5,000 new nuclear bomb shelters were being constructed in Moscow to be completed by the end of 2012.

Officials justified the move by saying they wanted the entire population of Moscow to be able to reach a nuclear bomb shelter within minutes. China has also built huge underground bomb shelters, outpacing the United States whose bomb shelters from the cold war era still remain as they were at the time or have been decommissioned.

The prospect of Russia moving nuclear missiles to Cuba obviously harks back to the 1962 Cuban missile crisis, which marked the closest moment that the world came to World War III and a potential nuclear holocaust.

Given the gravity of Putin’s alleged statements, don’t expect to wait too long for Russian authorities to deny the quotes featured in the Pravda report.

*What, me worry? Can’t think of one reason why (but I can think of several, all spelled missile).*

Old news? I wonder how much 7,540 median sections would cost. Heck, forget that, we’ll just build enough forms to use up 12 yards of concrete and do it a batch at a time. We can just get the concrete from the nearest plant; we don’t need to be supporting Fred. Remember him, my ‘new’ stepfather. Best use fiberglass fibers and an accelerator. We ought to make those puppies extra thick. How much concrete will a .50BMG AP cartridge penetrate? Looked it up on the Internet... one source said An AP .50 round will penetrate 18 inches of hardened steel at 100m. Really?

*Plan B...* How much concrete will a 7.62x51mm NATO AP round penetrate? Internet, different source: M61 Armor Penetration @ 300 meters: 0.28 in (7 mm) @ 500 meters:

0.2 in (5 mm); the M993 7.62mm AP Round is capable of penetrating a 7mm thick high hardness armor (HHA) plate at a distance of 500 meters from the muzzle of the weapon. This corresponds to ¼ inch armor plate at a distance of 550m.

Yeah, very thick. On the other hand the standard issue rifle for the US military is the 5.56x45mm NATO in those highly reliable M-16s/M-4s. Even the Russians are using 5.45x39mm these days. Ah, the good old days with 7.92x57mm Mauser, .30-06 Springfield (7.62x63mm) and the 7.62x54mmR. The 7.62x51mm NATO is supposed to be equal to the .30-06 Springfield. If that's true, why did Carlos use a .30-06 Springfield in Vietnam? Used a Ma Deuce once, too.

In 1977, NATO members signed an agreement to select a second, smaller caliber cartridge to replace the 7.62x51mm NATO cartridge. Of the cartridges tendered, the 5.56x45mm NATO was successful, but not the 55 grain M193 round used by the US at that time. The wounds produced by the M193 round were so devastating that many consider it to be inhumane.

Instead, the Belgian 62 grain SS109 round was chosen for standardization. The SS109 used a heavier bullet with a steel tip and had a lower muzzle velocity for better long-range performance, specifically to meet a requirement that the bullet be able to penetrate through one side of a steel helmet at 600 meters. This requirement made the SS109 (M855) round less capable of fragmentation than the M193 and was considered more humane.

The 5.56x45mm NATO inspired an international tendency towards relatively small sized, light weight, high velocity military service cartridges that produce relatively low bolt thrust and free recoil impulse, favoring light weight arms design and automatic fire accuracy. Similar intermediate cartridges were developed and introduced by the Soviet Union in 1974 (5.45x39mm) and by the People's Republic of China in 1987 (5.8x42mm). I think the concrete barriers will do fine against most of the current crop of military ammo.

## The Dome II – Chapter 23

“I’m thinking about ways to modify the berm, now that it and the gate are in, to make it more defensible. I considered sand bags filled with dirt, but it’s just a few yards short of 10 miles around the perimeter. I’ve also considered building a set of forms and pouring 12 yards of concrete at a shot to form something similar to those median dividers. Those could be about 24 inches high and 60 inches long. If we spaced them 24 inches apart we’d have hole to shoot through every 5 feet. The outside edge of the canal is about ten miles long, so we can use that to approximate the other computations. Are you with me so far?”

“Cal, when Mom moved back to Missouri, we lost our school teacher. My PhD is in Economics, not education. If that’s not bad enough, they won’t pay attention. When I put James on the spot, he said, ‘Well, you’re only our Mom, not our teacher’. When I confronted Kathleen and Jennifer they said essentially the same thing.”

“Don’t look at me, I didn’t graduate college. I ran a class 3 dealership and a Ready Mix Company in the past and more recently farmed 3 sections of land and at the moment 6 sections. What do you think about my idea?”

“Men! Do what you want, you will anyway! I’ll tell you what I’m going to do. I’m going to continue the home schooling until I can hire a teacher. I’m thinking a natural blond about my height with a DD cup or bigger so I’ll have an excuse to cut your throat if you so much as look.”

“Blonds have a reputation of being dumb.”

“Are you calling Sharon Stone dumb? She has an IQ of 154 and she’s has platinum blonde hair, sparkling blue eyes, a voluptuous figure and a deep sultry voice. Jill St. John has an IQ of 162.”

“Jill St. John has red hair.”

“Plus a voluptuous figure and appeared in bikini-clad, sexpot roles.”

“Ok, hire whoever you want and I’ll start getting forms built.”

“I wonder if Loni Anderson is available.”

Maybe Sharon isn’t dumb, but she acts that way all too often. Ginger should hire her; I wouldn’t give her a first look, let alone a second. Now, if Lynda Carter wasn’t so tall... 5’ 9”... She’s a Phoenix native and she won the title of Miss World USA representing her home state of Arizona in 1972. She didn’t win; the title went to Miss Australia. (Lynda: I’m 5’ 9”, but most people think I’m about 6 feet tall. It’s because I have very long legs.) A little full in the chest, too; 36C-25-35.

At the moment, I'm beginning to think TOM is right and the next catastrophe will be a GTW. That's all the more reason to turn the ranch into an enclave that would be difficult to overrun. With that in mind, I got our farmhands and security people involved in building the median divider forms. After the first was completed, we filled it with water and measured the water as we emptied the form. How many cubic feet are there in a gallon of water? The correct question was how many gallons of water are in a cubic foot and the answer was 7.48. The answer to the original question would be 1 divided by 7.48 equals .1337.

We measured the water in 5 gallon pails from the pallets of pails and a few quart jars and pint jars and converted the volume back to cubic feet. When it was all said and done and enough forms built with one extra, we formed up a sandbox for the children on the ranch using 2x6s. Ginger was pleased with the sandbox and asked when the playground equipment would arrive. I told it wouldn't get here until she ordered it. Big mistake! Always specify exactly what you have in mind. What a playground!

We ended up with 6 swings, 2 slides... one low and one high, a jungle gym, horizontal bars, tether ball, playhouse, basketball hoop, teeter totter/see-saw, and a refurbished rotowheel, just to name some of the equipment. I hadn't seen a rotowheel in years. Probably took them off the market as being too dangerous.

A rotowheel is a flat metal 'circle', with divisions. Each division is a triangle and a square style U shaped loop making about 12 divisions on the wheel. It is close to the ground and children run alongside bringing it up to speed then jump on and ride it until it's time to jump off and bring it up to speed again. Lose your grip and centrifugal force will throw you off. Public playgrounds were a concept developed by Teddy Roosevelt. The City of New York banned swings as too dangerous. I think that explains the SAFE Act. New York is where 15 people stood around looking and did nothing when a woman was stabbed to death.

Catherine Susan "Kitty" Genovese (July 7, 1935 – March 13, 1964) was a New York City woman who was stabbed to death near her home in the Kew Gardens neighborhood of the borough of Queens in New York City, on March 13, 1964 by Winston Moseley. The circumstances of her murder and the lack of reaction of numerous neighbors were reported by a newspaper article published two weeks later; the common portrayal of neighbors being fully aware but completely unresponsive has since been criticized as inaccurate. Nonetheless, it prompted investigation into the social psychological phenomenon that has become known as the bystander effect or "Genovese syndrome" and especially diffusion of responsibility.

Genovese's killer, Winston Moseley was found guilty and sentenced to death on June 15, 1964. That sentence was later reduced to lifetime imprisonment on the grounds that he had not been allowed to argue during the trial that he was "medically insane". Moseley committed another series of crimes when he escaped from custody on March 18, 1968 and then fled to a nearby vacant home, where he held the owners hostage. On March 22, he broke into another home and took a woman and her daughter hostage be-

fore surrendering to police. Moseley, who was denied parole for a sixteenth time in November 2013, remains in prison. I *heart* New York... in a pig's eye. A vacant home is a source of hostages. Don't that beat all?

Speaking of which, with a new pig barn, we expanded our herd of sows from 30 to 60. With an average surviving litter of 12, twice a year, we were doing very well on our livestock and had increased the Black Angus herd to double, too. After the GTW, we can use most of the alfalfa acreage to grow wheat, corn, oats, beans and rice to feed the starving masses, assuming we don't take a direct hit. Fort Huachuca isn't THAT far away.

Fort Huachuca is a product of the Indian Wars of the 1870s and 1880s. In February 1877, Colonel August B. Kautz, commander of the Department of Arizona, ordered that a camp be established in the Huachuca Mountains. This camp would offer protection to settlers and travel routes in southeastern Arizona while simultaneously blocking the traditional Apache escape routes through the San Pedro and Santa Cruz valleys to sanctuary in Mexico. A temporary camp was established at the post's current location on March 3, 1877, by Captain Samuel Marmaduke Whitside with two companies of the 6th Cavalry. The site was selected because it had fresh running water, an abundance of trees, excellent observation in three directions, and protective high ground for security against Apache tactical methods. Camp Huachuca was redesignated a fort in 1882.

In 1886, General Nelson A. Miles designated Fort Huachuca as his advance headquarters and forward supply base for the Geronimo campaign. Geronimo's surrender in August 1886 practically ended the Apache danger in southern Arizona. The Army closed more than 50 camps and forts in the territory, but Fort Huachuca was retained because of continuing border troubles involving renegade Indians, Mexican bandits, and American outlaws and freebooters.

In 1913, the 10th Cavalry "Buffalo Soldiers" arrived and remained almost 20 years. The 10th Cavalry joined General John J. Pershing in the 1916 expedition into Mexico and, during World War I, it was assigned the mission of guarding the United-States-Mexico border.

By 1933, the 25<sup>th</sup> Infantry Regiment had replaced the 10<sup>th</sup> Cavalry as the main combat unit for the fort. The 25<sup>th</sup>, in turn, was absorbed by the 93<sup>rd</sup> Infantry Division during World War II. When the 93<sup>rd</sup> departed for the Pacific in 1943, the 92nd Infantry Division arrived at the fort for training and subsequent assignment to the European Theater. During the war years, the troop strength reached 30,000 men at the fort, which in the 1930s had been described as suitable for a brigade-sized unit of about 10,000 men.

At war's end, the fort was declared surplus and transferred to the State of Arizona. It was reactivated during the Korean War by the Army Engineers.

A new era began in 1954 when control passed to the Chief Signal Officer, who found the area and climate ideal for testing electronic and communications equipment. The

importance of the Fort in the national defense picture grew steadily from that moment. In 1967, Fort Huachuca became the headquarters of the US Army Strategic Communications Command.

Then, in 1971, the post became the home of the US Army Intelligence Center and School, bringing with it the School Brigade.

The Strategic Communications Command became the US Army Communications Command in 1973, subsequently changing to the US Army Information Systems Command in 1984.

In October 1990, the post changed hands with the US Army Training and Doctrine Command became the new host command; the US Army Intelligence Center and Fort Huachuca now operates the post.

Today, Fort Huachuca is a major military installation in Arizona, and one of prominence throughout the Southwest.

Nah, they couldn't that far off target.

"I've been reading your journal again. You're starting to sound more like TOM with every entry."

"Could be. Where did you get that playground equipment? They haven't make things like a rotowheel in years. Probably took them off the market as being too dangerous."

"I was economizing so you could build your wall."

"They're called merlons."

"We don't have enough people to staff 7,540 slots."

"They're called crenels. Of course we don't. Do you really think we'd be attacked on the whole 10 mile perimeter of our property?"

"I found a school teacher."

"Lynda Carter?"

"No. She looks like Jodie Foster with a big chest."

"I'll remember that, Jodie Foster is gay. No, thank you."

"Jodie Foster has a Bachelor degree from Yale, Magna Cum Laude."

"What about the gal you hired?"

“MA in Accomplished Teaching from ASU; and, she’s bi-lingual, English and Spanish. Lynda Carter is happily married and a recovering alcoholic.”

Well... she did sort of look like Jodie Foster in a distant sort of way. And she was very full in the bosom. Every single man and most of the married ones noticed. But we were working dawn to dusk casting, unmolding and adding the merlons starting from the gate and working our way outward. We also cast corner pieces that were, at best, awkward and had to be hand cut to fit.

Ramón said that Selma was trouble with as capital T. Turned out not to be true. She accepted most of the requests for date from the single men and after a bit, settled on a steady. They were married before we had all the merlons in place.

“This place reminds me of a short castle complete with moat. I guess an attacker could get across the moat and up the slope, if we didn’t know they were there.”

“You’re right, Ginger, and I’ve been considering that. We have the night vision equipment and could build two guard towers at the gate and one on each of the corners. Then we could add a guard tower in the middle of each side. Ramón would have to come up with more machine guns but it’s only 8 guard towers. Only staff the tower at night when people would be likely to attack.”

“Why do you think people would be likely to attack?”

“How many armored cars have delivered gold and silver here? In downtown Phoenix or Tucson, an armored car doesn’t stand out. But in Eloy? Get real. And they must have noticed that most, if not all of them, come here. The people see truckload after truckload of alfalfa moving off the ranch and most people have an idea of what those round bales must weigh (1 ton). With the FDIC limit being what it is, most would assume that the money we receive for the hay and livestock isn’t sitting in some bank. Combine that with the armored cars and it is ether bundles of Ben Franklins or precious metals.”

“Just how much do we have?”

“We can measure it in tons. One thousand troy ounces weigh about 83½ troy pounds or 68½ regular pounds. We’ve bought anywhere from 500 troy ounces to 2,000 troy ounces, depending on the building projects and other expenses, for years. And some of the purchases were silver Eagles and junk silver coins because they represent known quantities of silver. The authors assume in a PAW world, precious metals will double in value. And, if you’re still reading my journal, you know that I’m concerned about a Gee-Tee-Dubya.”

“Huh?”

“Global Thermonuclear War.”

“Like I said, you sound more like TOM every day.”

The bales generally went 5 per acre because of the irrigation, and we got \$100 or more per ton/bale. Now, 1,280 times 5 equals 6,400 times \$100 equals \$640,000 twice a month. I hadn't recomputed after the operation was doubled and we were generating, in round numbers, \$1,280,000 per month from alfalfa sales. Times 12 equals \$15,360,000. That doesn't count the sale of hogs twice a year or beef annually. Our payroll and equipment had increased, but only slightly. We staggered the cutting so we were essentially cutting continuously.

How many hogs? Well... 60 times 12 equals 720 times 2 equals 1,440 less butchered, generally between 20 and 40, so call it 40. Therefore 1,400 hogs at 250 pounds equals 360,000 @ an average market price of \$1.10 per pound equals ~\$396,000 per year. We generally have 60 cattle at 1,250 pound market weight annually. Of these, we probably butcher half these days and market the other 37,500 pounds as prime beef. Prime beef goes for maybe \$1.60 so the cattle operation is our smallest, generating about \$60,000. Grand total in a good year, \$15,360,000 plus \$396,000 plus \$60,000 equals \$15,816,000 gross revenue.

We provide housing, which we depreciate; food, an expense; fuel, an expense; firearms, which we depreciate; and ammunition, an expense. Add those items to our payroll which averages about \$44,000 per employee or ~\$3,520,000 (80 employees) and we have a very positive cash flow and much lower taxable earnings. The Trust was a corporation, but the ranch is a proprietorship. JTWROS... look it up. Arizona is a community property state.

Some of wives are part-time employees and are paid in canned food, meat, things from the Warehouse and some cash. Because of this practice, we have some turnover in the Warehouse and those things are being rotated on a 10 year basis. To ensure our ability to grow wheat, corn, oats, beans and rice, we stocked heirloom seeds which are reproduced in the greenhouse. Our limited seed stock is always fresh.

No one person can think of everything, no matter how hard they try. I suspect that this may underlie TOM's obsession with salvaging as soon as it is safe to do so. Even Jerry seems to advocate a similar line of thinking. The question then becomes, how soon is safe after something like a GTW, for example. Jerry suggests that the older people who are unlikely to experience radiation induced cancer be the first out of the shelter. Second choice might be persons who are no longer reproductive. If a nation is to recover after a GTW, the survivors should endeavor to increase the local population. TOM says with the radiation level below 104mR/hr, a person will experience a maximum of 2.5R/day and the limit is 300R per 120days.

He also recommends sleeping in the shelter until the radiation is 50mR/hr for adults and lower for children. I examined his seven\_ten\_rule spreadsheet and I'm guessing it takes years to fall to the normal background radiation level. Ginger had established our aver-

age normal back ground levels well before those terrorists exploded the 5mT nuke in San Diego.

Once the moat (canal) was in, the outside of the berm coated with Bentonite and the merlons in place, we started creating stairs on the inside of the berm about every 400 yards to access the flat below the top of the berm. As each section was completed, ammunition was distributed to the top of the stairs. It generally included 7.62 and 5.56 ammo, some shotgun shells and 9mm and .45ap pistol cartridges. The exotic munitions like the hand grenades, 40mm grenades, LAWs and AT-4 rockets would be brought to the area where the trouble broke out.

Ramón, Hank and I made the trip west of Flagstaff on a search and steal mission looking for more Mk 19 Mod 3s, M2A1s and M240Bs. Ramón flashed his Retired ID card, getting us through the gate. We then went to the bunkers and armories picking and choosing. I won't say we took everything not nailed down since we were 'shopping' from a list. The list was long, listing specific weapons and related ammunition. We commandeered a 10 ton truck and trailer loaded them down, putting them on their springs.

The hard part wasn't getting in, it was getting out. This called for a bluff. Ramón was wearing Sergeant First Class Insignia and told the guard who asked for our requisition forms that we had to leave them with the NCOIC of Logistics. When the Corporal called to confirm, the NCOIC of Logistics was unavailable. The assistant NCOIC of Logistics was available and confirmed the requisition had been kept and to let us go on our way.

About the time we reached Flagstaff, Ramón started chuckling hard enough that he had tears running down his cheeks.

"What's so funny?"

"The assistant NCOIC and I go back to boot camp. I've known him for 20 or more years. It's just too bad they didn't have 2 trucks and trailers; we've have nearly cleaned them out. The NCOIC told me he had to leave for a dentist appointment and his assistant would handle anything that came up. Believe me, this was a one shot deal. Regardless, we have a total of 8 Mike 240 Bravos, 8 Mike 2 Alpha 1s and 8 Mark 19 mod 3s plus half a truck and a full trailer of ammo for the towers."

"Hank, how is the ditch doing?"

"We seeded with Blue Tilapia from the pond as soon as it was filled and the duckweed established. We'll probably seine it with the net with 3½ inch squares."

"Harvesting the Tilapia is going to be a big job."

"I think so, almost continuous. Have you found an outlet for the fillets?"

"Sure haven't; I'd better discuss this with Ginger."

“You do that a lot.”

“I guess you’re right. Ginger and I are a team. My first wife Carolyn and I weren’t on the same wave link and it got her killed.”

“Ginger isn’t your first your first wife?”

“Second marriage for each of us. My wife was killed in a holdup of a Circle K. She wasn’t anti-gun but she wouldn’t carry one. Ginger’s first husband liked to bed undergrads. It eventually got him killed, after the divorce. I saw Ginger in a bar one night and offered to buy her a drink. We were married 7 days later.”

“You have three wonderful children,” Ramón said, “and, I’m lucky I was a part of that.”

“Yes it could have turned out bad if you hadn’t led the way to Phoenix Code 3.”

“That was you with the Arizona Highway Patrol?”

“It sure was. We do things like that from time to time but it was the first time anyone called the Department and asked them to thank the Trooper.”

“I had to do it Ramón; you saved Ginger’s and the twins lives. It took us a long time to figure out a way to thank you.”

“Yeah, God Bless the BATFE.”

“So that’s where you got the Kimber and custom M21?”

“Shh, Hank, don’t say that too loud. At the time handing over the M21 and Kimber plus a M1A Loaded and Taurus PT1911 weren’t exactly legal.”

## The Dome II – Chapter 24

“Did you get what you went looking for?”

“Yes, we got enough to put one of each in all eight towers. We’ll get some armor plate somewhere and engineer gun shields for each of the 3 guns in each tower. Considering the penetration of .50BMG rounds, I expect they’ll probably be good for most .30 caliber rounds. It doesn’t matter, the standard issue infantry weapon these days seems to be smaller than 6mm.”

“How are we on fuels?”

“They’re set it up for them to be refilled the 15<sup>th</sup> of every month. Plus you have us set up on biodiesel should the need arise.”

“Are we finished improving the Ranch?”

“Well... I can’t be sure, but nothing comes to mind. The subject of the harvest from the canal came up. I said I’d talk to you and we’d figure out something.”

“I don’t know Cal. I read somewhere that the US imports over 500 million pounds of Tilapia. For all I know, the market could be saturated. How do you propose to harvest and prepare them?”

“We’d use the 3½ inch net so we only get the largest, fillet the fish and flash freeze the fillets. Is our liquid nitrogen storage full?”

“Yes, it’s refilled twice monthly.”

Flash freezing is accomplished by subjecting food to cryogenic temperatures. The most commonly used, that I was aware of, was liquid nitrogen. It is atmospheric neutral since the atmosphere is 78% nitrogen. Some industries use a combination of liquid CO<sub>2</sub> and N<sub>2</sub> instead of pure nitrogen. Without considering it, we were actually green because the alfalfa removed CO<sub>2</sub> and produced N<sub>2</sub>. Somehow I doubted that our 2,560 acres of alfalfa offset the loss of the Brazilian rainforest.

I actually have no opinion on climate change. If, in fact, we’re experiencing global warming, it won’t last. That’s because global warming causes Arctic and Antarctic ice to melt along with Greenland and Iceland. The fresh water enters the oceans, especially the Atlantic, and will eventually submerge the Gulf Stream. It’s one of those when, not if, sort of things.

All 186 items on Jerry’s list were when, not if events, in my opinion. But what do I know, I’m a college dropout farmer and my name isn’t Percivale George Jackson. We didn’t have some scheme to acquire gold and silver based on market changes like Percy or Jack Travis Sandusky. We did try to buy low and sell high, that’s just good common

sense. We'd only done it a few times when gold seemed to be inordinately high and fell a few months later. Additionally, we bought only US gold and silver Eagles and US junk silver. It would have been cheaper to acquire the one ounce bars but would people accept them like the coins?

Besides, like I said before, the authors seem to think the price of gold and silver will double in the event of any major catastrophe. So far, we haven't apparently had what would classify as a major catastrophe, 'cause the gold and silver was below \$1,400 and \$23 an ounce respectively. It was obvious a good time to buy. With the defenses finished and nothing else pressing, we spent about 25% of our income doing just that.

I'm beginning to wonder what constitutes a major catastrophe after Yellowstone, the Comet, the Muslim invasion/shootout and the San Diego nuke. Maybe it's localized and if you don't get hurt, it doesn't make the list. Any way you slice it, the IRS and Arizona Revenue Department were getting about half of our net taxable income; which made it easier to borrow a small amount from the Arizona Army National Guard. Don't get confused over the Marine Corps LAVs; Camp Navajo stores \$7 billion worth of equipment for the other branches of the US military. Anyone need a Minuteman II or Trident C-4?

Ramón put in his 20, mostly in the Arizona Guard. What's the difference if he took the stuff one piece at a time or all in 2 shopping trips? His assessment of our status was that we were basically at the mechanized platoon size with an enhanced weapons squad. And he had his 24 person Security Squad.

Without a project to occupy my time, I tried to learn to use our communications gear. I had the General class license and was studying for the Extra class. Ginger as willing to offer hints and the special scientific calculator. Beyond that, I was on my own. When I complained that the calculator wasn't much help she took time to show how to make the 6 step calculations. The remainder was rote memorization.

I took the test and passed. When my license arrived I posted the larger portion in the Den and had the pocket portion laminated. I understand that the PAW authors don't make a big deal of unlicensed radios after the crap has hit the fan and that amateur band are not to be used for business. But the VHF business band radios wouldn't reach Phoenix or Tucson without repeaters. Since we were stocking the pm's in the 3 vaults in record amounts, I contracted a radio shop in Phoenix and asked him to install a repeater between Eloy and Phoenix, and did the same with a radio shop in Tucson.

Repeaters are typically installed on an elevated piece of ground about halfway between the two destinations. We bought the towers from the dealers and added a bank of 6 8 volt batteries plus an inverter. PV panels kept the batteries charged, similar to our well powering setup without the generators. The batteries typically were charged in the 96 to 98% range. Typically you pay rent on the small property where your repeaters are located.

We came up short on a solution to the Tilapia. The short term solution was to install a large freezer to store the fillets at -18°C (0°F) or less. What's more, it had to be huge freezer, mandating a walk-in. Also, if we ended up with fish being stored for too long, we could donate the fillets to one of several charitable causes.

"Ginger, we have heirloom seeds to grow wheat, corn, oats, beans and rice seed in the Warehouse. Do you think we can store them like the other heirloom seeds or do you need to grow fresh seeds every year?"

"Considering the size of the greenhouse, we'd better do both. We'll store about 95 percent of the seeds in Mylar bags with oxygen absorbers and use the remainder to bring the stock up to 100% and repeat each year until we have enough to plant almost all of the alfalfa acreage. I assume that's what you're getting at because of your fears over a Gee-Tee-Dubya."

"Good guess. I've also decided to keep the heifers until our cattle herd is up to 120. I did an analysis of which part of the operation produces the most income and it's the alfalfa. When we have the GTW, we'll be short on beef to feed the masses. What do you think about increasing the hogs to 90 sows?"

"How much do we get out of the 60?"

"The pork we eat plus just shy of \$400 thousand."

"Go for 120 sows. What did you use as the average surviving litter?"

"Twelve."

"Take the hits to the income and increase the herds."

"Hank, I talked over with Ginger and we want increase the hog herd to 120 sows and Angus herd to 120 cows. We're just going to take the hit on the income to get it done."

"Increasing the cattle herd probably won't amount to much and neither will the hogs; you make most your money from alfalfa sales. With the herds of Quarter horses, Barbs and Andalusians, we could probably afford to sell horses."

"I think not; horses don't use gasoline or diesel."

"World War III still on your mind?"

"More than ever; just call me Chicken Little."

"There must be a dozen versions of that fairy tale. Disney made 2 cartoons about it; one during the Second World War and another in 2005. Be that as it may, we'll go through

the herds and find the roughly 30 heifers and 60 gilts. Figure on 2 seasons to increase the beef herd.”

“Uh, ok, thanks, Hank. I just had a thought... I’ve got to go talk to Ginger.”

“Ginger, Hank says no problem on the hogs and the beef will take 2 years. I just had a thought; why don’t we have magnum caliber handguns?”

“You’re the former gun dealer, you tell me.”

“My father didn’t care for them.”

“Your father is long dead; what about what you think?”

“It sort of depends on the firearm. I’m sure Ruger has sold tens of thousands of the Blackhawks and Super Blackhawks. They’ve probably sold a lot of those Redhawks too. Smith & Wesson brought back some classics including the model 29. I’m actually happy with what we have, but wondered if the military calibers and the black powder/smokeless powder firearms were the way to go.”

“Colt has an 1877 Bulldog Gatling Gun available in .45-70 that they brought out in a while back.”

“Still available?”

“As far as I know yes.”

“Know what they cost?”

“I don’t have a clue.”

“And they’re .45-70, you say.”

“That’s what I read on their website.”

I went searching and at Cabelas found:

*After 2 years of R&D using the original plans and specifications, the US Armament Corp of Ephrata, Pa., has brought back to life the Model “1877 Bulldog Gatling” gun. This incredible reproduction is chambered in the original 45-70 Government Caliber with a maximum firing rate of 1000 rounds per minute. The Bulldog is equipped with a Bruce Feed Gravity Feed system (not a magazine) which hold 40 rounds in parallel and is fed with wooden feed blocks. The Bulldog has five 18¼ inch barrels which are fully enclosed in a cylindrical housing, with an overall length of 34 inches. The Bulldog was the first rear hand-crank gun that Gatling ever produced. Every turn of the rear crank produces a complete revolution of the 5 barrel unit thus firing the gun 5 times. The spent*

*cartridges are automatically ejected from the gun. At the rear of the gun there are adjustments for windage and elevation. The tripod mount includes beautiful brass and iron components, and legs of solid ash wood. The Bulldog weighs in at 135 pounds, and the tripod weighs an additional 135 pounds. The original 1877 Bulldog was tested for accuracy and scored an incredible 996 direct hits out of 1000 rounds at a distance of 500 yards. Price \$36,000.*

And, with an assistant to load the magazine, you could fire forever... I'll take 8. It's only money; and unless you've slept through part one and part two of this story, money isn't a problem. We have tons of money, literally!

Isn't it refreshing to have a PAW story where the author didn't have to win the Lottery, Power Ball or inherit tons of money? We earned our money after I inherited the gun business, ½ of the Ready Mix Business and 3 sections of land. Everything I'd inherited was tied up in the land with its Dome and my half of the Ready Mix Business. I sold Fred my half of the Ready Mix shortly after Ginger and I got married. Due to her experience of growing up on a Missouri farm and suggestions, that I listened to, we ended up with 3 safes of gold and silver plus 3 more sections of land. Let me restate that, we moved all the gold to the triple sized safe that Jacob recently built and kept the silver Eagles in the Trust safe and junk silver in the former gold safe.

We had a bunch of employees, 80 including the security force of 25 including Ramón. Hank and his group of Vaqueros and farm hands accounted for the other 55 full time employees. I know I mentioned the part time employees, the wives.

I called Cabelas in Glendale and inquired about the 1877 Bulldog Gatling gun. It had been sold but they could order another and have it in 6 months. A line of TOM's, from *Top Gun* came to me, "BS 6 months! This thing could be over in two months! Get on it! And I want 8, not 1."

They told me to call the manufacturer and gave me the telephone number before they hung up. The manufacturer wanted my FFL and I explained that I'd turned it in when I gone out of the class 3 business. No FFL, no gun.

"Look, I'll drive to Tucson and have my favorite dealer FAX you his FFL license. Give me your FAX number and you'll have it within the hour. And I want 8 of the 1887 Bulldog Gatling guns you build. I need them in 2 months, in my hands. Yes I'll pay extra if you incur any overtime. Thank you. Goodbye."

After I got back from Tucson, I called Pennsylvania again, but it was after hours. I didn't leave message for them to call me back. I did get up at 6am and was dialing by 7am. I asked to speak to the salesman and gave his name. I was connected and...

"This is Calvin Burgess from Eloy Arizona. Did you receive the FAX from my Tucson gun dealer yesterday? Can you fill the order for 8 of the guns within the 2 months? Yes, I said I'd pay overtime if you incurred it. I need to fabricate one of those wooden blocks.

Do you sell them or can you get them? Yes only one per gun. You can? Can you just add them to my tab? Ok, P.O. Box 14 in Eloy, Arizona. Thank you. Goodbye.”

Does it pay to be polite? I got 8 of the wooden blocks with holes drilled in them by Priority Mail. I gave the 8 blocks to Ramón and told him 2,000 identical blocks but he had 2 months to get the job done.

“You’ve been all doom and gloom since I told you about that Gatling gun and now you’re smiling. Something change?”

“The 8 guns are under construction and will be delivered in 2 months, presumably with parts kits. I got 8 of the wooden feed blocks they use to load the .45-70 cartridges. All I need to have everything to close this project is for Ramón to manufacture 2,000 duplicate feeding blocks, a lot of .45-70 ammo and time.”

“How much were they?”

“Thirty six thousand each, MSRP; and, since I put a rush on them I expect they’ll probably cost the full \$36k.”

“Three hundred thousand for guns that were declared obsolete by the US Army in 1911?”

“Yep.”

While we could afford Buffalo Bore .45-70-405, we certainly weren’t going to spend that kind of money to get the ammo for the Gatling guns. A search of the Internet led to a YouTube video of the gun in action. The demonstrator didn’t use another person as a loader and limited the demonstration to 40 rounds at once. The new gun was slightly different from the original guns in that it had a rear crank as opposed to a side crank. A time shoot with the demonstrator cranking as rapidly possible revealed a throughput in excess of 800 rounds per minute. Not too shabby, if I say so myself.

The problem with the towers having 4 machine guns each was a conundrum in itself, with no apparent easy solution. Ramón suggested making the towers rectangular and mounting the machine guns side by side. Eight towers and 24 security people is only 3 per tower, not counting someone to load the Gatling gun. He pointed out that the Gatling guns would probably be used as weapons of last resort when one or more of the other machine guns ran out of ammo. I told him to make it so. And then, I gave him the dirty job of buying the .45-70-405 ammo for the Gatling guns.

He got the ammo, 2 truckloads worth. It was all .45-70-405, full power ammo and not Buffalo Bore. Normally, one looks at the head stamp to determine the manufacturer and the ammo was marked R-P. When I looked on the web, the lowest price I found on Remington 405 grain was about \$35 for a box 20.

“Ramón, how much did the ammo cost you?”

“Eighty-nine cents a round. I bought you a lifetime supply.”

“No way!”

“Way. You see, I know this guy in Lonoke, Arkansas where their plant is. I called him up and asked what they would do if they got a large order for .45-70-405. Well, he says they make that in a flat nose lead round. So I asked him how much and he said the MSRP was \$44.95 for 20 round box. So I asked what wholesale price was and he said it depended. So I asked him what it depended on and he said, ‘quantity purchased, 20 round box or bulk packed.’

“So I said how much for the loose bulk packed in in 500 round cases. He sort of sucked wind and asked, ‘how many cases do you want?’ So I asked ‘how many cases do you have?’ And, he says, ‘lots.’ It seems like at the end of a production run they pack the last 500 or so rounds in a case, measured by weight and they put the case(s) in a warehouse. The intention, he said, was to open the cases when they did the next production run and to box them in 20 round boxes. From what I gathered, someone was remembering to get the cases from the warehouse for the next production run and they’d just get the open case and top it off to 500 rounds and start a new case.”

“You can’t be serious.”

“Trust me, Boss, I’m serious. He said he had no idea how many cases they had, but it was A LOT. So I asked how much for all you got? He says he has no idea. He’d check the warehouse the next day and talk to his boss. So he calls me back the next night and says they have enough 500 round cases for 2 truckloads. So, I asked how much and he says we can have it wholesale. I told him no thanks; I was looking for a good price. Normally the wholesale of ammo is give or take 66⅔ to 70% of retail for commercial ammo. The military is different; they sort of make their own.

“Anyway ⅔ of \$44.95 is about \$30 a box of 20. But this is loose packed in 500 round cases and those 20 round boxes must cost them something and I offered him 75¢ a round. He says they can’t go that low so I offer him 80¢ a round and he’s weakening, I could tell. He says ‘well...’ and I said ‘last offer 85¢.’ He responds with and ‘you pay the freight.’ I asked how much was the freight and he said figure 4¢ a round and I said, ‘done, done and done.’ It should be here later today or tomorrow.”

“Ramón, go look, they’re sitting there with disgruntled looks on the faces waiting to be unloaded.”

“No way.”

“Way.”

Eight-nine cents round? Get outta here. It was COD and was 89¢ a round, Ginger wrote the check and counted cases; I'll be damned. We had to store it in the new pole building we'd put up to store the horse fence in.

Meanwhile the contractor was erecting the outdoor walk-in freezer. We got it from Barr, Inc. and it's a 40'x48'x20'4"H Drive-in freezer, 1.920ft<sup>2</sup>. MBCI mnfg panels and Krack mnfg equipment. Modular, tongue & groove cold storage Eco-ficient panels with 4" thick non-CFC foamed-in-place polyisocyanurate foam insulation and a stucco white interior/exterior finish. USDA & FM Approved. Unit includes (1) 8' x 8' manual sliding door. The personnel swinging door was optional, but it wasn't that much. The install trim package was also purchased. Plus, it will run on 240 volt AC.

Back in the days when Charlie the Tuna lived on Terminal Island, his buddies were sleeping in the freezer which was maintained at -60°F. Every afternoon, Sunday through Thursday, the workers would haul about 25-30 bins of the frozen fish into a concrete bin, and then the bin would be filled with warm saltwater. Early the next morning the fish were thawed and the men Star-Kist employed would take their very sharp knives and gut the fish.

They go into something that resembled the bread basket they use to deliver bread to stores and the baskets into racks. The racks would be wheeled into steam cookers and the fish would be automatically cooked. The next morning the cooled fish would go to the line where the women would dismantle the fish and put it on a conveyor. The conveyor fed the canning machine and the sealed cans went into baskets which were pressure cooked again.

Finally, they'd pull random cans and test them to see if the product met their quality standards. If it didn't, it would end up being one of the 'off brands' on the store shelves. The closer the product was to their standards, the higher the price on the shelves. They had hundreds of brand labels. Who owns them now? They closed the Terminal Island Plant.

1910

Yugoslav immigrant Martin J. Bogdanovich buys a fishing boat and begins fishing off the California coast

1918

Bogdanovich and five partners, seeking to profit from the US Government's World War I procurement of tuna for troops, form French Sardine Co. in San Pedro, California

1942

French Sardine Co. adopts StarKist brand name; during World War II, more than half of the company's output is bought by the US Government

1944

Martin passes away and his son, Joseph, becomes chief executive

1952

The company opens the largest tuna cannery in the world on Terminal Island in California

1953

The company's name is changed to StarKist Foods Inc.; 9 Lives pet food business brand is established making use of tuna by-products

1960

StarKist Foods Inc. opens a plant in Puerto Rico

1961

Charlie the Tuna debuts in StarKist television commercials and TOM's 'friends' start calling him Charlie

1963

StarKist Food Inc. is acquired by H.J. Heinz Company with Joe Bogdanovich remaining as President; StarKist opens a plant in American Samoa

1980

StarKist becomes the top US tuna brand

1985

High labor costs compared to its Puerto Rico and American Samoa canneries leads StarKist to close the Terminal Island, California plant

1988

Heinz Pet Productions is split off from StarKist with William R. Johnson, future Heinz Chairman, as President

1990

StarKist adopts a “Dolphin Safe” policy

1993

StarKist Seafood recombined with pet products, is relocated to Newport, Kentucky

2000

StarKist relocated to Pittsburgh and introduces tuna in a pouch as the latest in packaging innovation

2002

Del Monte acquired StarKist from Heinz

2008

Dongwon Industries acquires StarKist from Del Monte Foods

According to Wiki, Charlie had a comeback when they brought out the pouches.

What they forgot to tell you was that Bumblebee albacore is the best tasting tuna.

## The Dome II – Chapter 25

We've done a lot of building... the amount of land... the size of the herds... the moat and berm... the gate... the 8 machinegun towers and we have a greenhouse and Warehouse plus an ammo bunker and underground garage with 4 LAVs. Everyone has more firearms than they can shoot and we even added Gatling guns, which ended up costing \$37,500 each in round numbers. The only thing we haven't had is a catastrophe recently, except for the Comet, which missed us. Ten down and seventeen to go. Check that, Bob's fatal heart attack was number 11 so it's 11 down and 16 to go.

When the twins were able to ride Ginger, James, Kathleen, Jennifer and I rode the 10 mile circuit around the ranch every morning it wasn't raining which was nearly every day. After unsaddling and rubbing down the horses, we had lunch, bathroom breaks and headed for the range. We started them with the 9422s and Ruger Bearcats. The 9422s used LR cartridges and the Bearcat shorts. When they were accustomed to the shorts, we moved to longs and finally long rifles. Then, while they were wide awake, 'Jodie Foster' aka Selma spent the remainder of the afternoon homeschooling James, Kathleen and Jennifer.

Ramón had added a Highway Patrol radio to the office and another to his Chevy Tahoe SUV, along with light bar and siren. Like the Arizona Highway Patrol, his vehicle was white. He could easily be mistaken for an unmarked Highway Patrol vehicle. He still had his uniforms and bought a badge from a Badge Company. His pistol was nonstandard as was his shotgun and rifle but one riot gun looks like another riot gun and it would be easy to mistake a HK416 as a M16. The Arizona Highway Patrol uses handguns in the .40 short and weak, not the Kimber .45acp. In a holster, one pistol resembles another pistol.

According to Fleataxi, the .40 S&W came about because the FBI wanted a more powerful cartridge and went to the 10mm. The 10mm is a powerful cartridge, too powerful, as it turned out. So, Smith and Wesson came up with a 10mm short and weaker than the 10mm round. It was designated the .40 S&W and he claimed that the S&W stood for short & weak. The migration by the FBI followed the famous 4/11/86 Miami Shootout, a textbook example of how not to do things. There are other examples of how not to do things, like the famous 2/28/97 North Hollywood Shootout.

Just when we expected to see incoming warheads, the 5 Chinese type 94s and 6 Russian Borei class reappeared on the radar. Add to that the fact that my stomach was bothering me. I tried Pepcid AC and it helped. Ginger made an appointment for me to see a doctor in Tucson. He ordered 2 endoscopic exams, a Colonoscopy and an Esophagogastroduodenoscopy. The second made sense but the other end didn't seem to be bothering me.

It seems I had hemorrhoids but no other problem with the other end. So, he came from the top and took pictures of what he found, ulcers. He prescribed Carafate to heal them and Prilosec generic to keep them from coming back. Maybe I was worried and it was

taking its toll. It was what John Ross would call an unintended consequence. I kept the Pepcid AC handy for when the Prilosec wasn't quite enough. Does this count as number 12? I hope so, that would only leave 15 to go. Where's the Pepcid?

The year 2018 came in like any other year, football games on TV. Not being much of a fan, I spent some time with my family and then retreated to my ham shack to listen and perhaps visit with some other hams. Mid-afternoon, Ginger brought in a plate of snacks and a pint of Coors. I was engrossed in a conversation I was listening to and held up a finger. The rumor mill was saying that Russia was pulling out of the Ukraine and Georgia.

They'd been in Georgia since Bush was President and had entered Ukraine in 2014. It couldn't be because of Chernobyl because Chernobyl was in the far northeast of Ukraine. When it happened, Reagan was President. The two hams changed topics...

"Thank you for the beer and some snacks would be perfect right about now."

"You don't eat right Cal and I think that has something to do with your ulcers. If you put food in your stomach, the acid dissolves the food and not your stomach."

"You could be right Ginger. Sometimes I get busy and simply forget to eat."

"And you end up popping a Pepcid, don't you?"

"I guess so; I always carry a bottle now."

"How many do you take?"

"Two, just like always."

"Pepcid used to be 10mg tablets. The ones you take are 20mg and you should only need one."

"One doesn't seem to do the trick."

"When you think you need a Pepcid, come to the dome and have something to eat. We always have lunch meat and usually have leftovers."

"We should cut back on what we cook to avoid leftovers."

"Some things we really like only come in certain sized packages, so we're bound to have leftovers. You like the Mexican lasagna, right? That's the only size package available."

"What's new with you?"

“Let me grab my drink and I’ll tell you.”

“Ok, I’m concerned about the ongoing drought in California because it is affecting food supplies in a major way. Many of the foods produced in California have alternate sources, like the rice we get from Arkansas. I made a list of California produce:

Apples, late summer through fall (cold storage until spring)  
Apricots, late spring through early summer  
Artichokes, spring and again early fall  
Arugula, available year-round but best in spring and fall  
Asparagus, spring  
Avocados, classically summer, but now harvested year-round  
Basil, summer  
Beets, year-round  
Belgian Endive, available year-round but best in fall and winter  
Blackberries, summer  
Blueberries, summer  
Boysenberries, early summer  
Broccoli, year-round but best in fall and winter  
Broccoli raab, fall through spring  
Brussels sprouts, late fall and winter  
Cabbage, best in late fall and winter but available year-round  
Cantaloupes, late summer  
Cardoons, winter and early spring  
Carrots, year-round  
Cauliflower, best in fall and winter but available year-round  
Celeriac/celery root, fall and winter  
Celery, best in fall and winter but available year-round  
Chard, summer and fall  
Cherries, late spring and summer  
Chickpeas (aka garbanzo beans), fresh in summer (dried year-round)  
Chicories, fall and winter  
Chiles, summer  
Clementines, winter  
Collard greens, year-round  
Corn, summer  
Cucumbers, summer  
Edamame, fall  
Eggplant, summer and early fall  
Escarole, fall and winter  
Fava beans, spring  
Fennel, fall through spring  
Fiddleheads, spring  
Figs, summer and fall  
Garlic, summer and fall (stored year-round)

Gooseberries, summer  
Garlic scapes/green garlic, spring  
Grapefruit, winter and spring  
Grapes, late summer and early fall  
Green almonds, spring  
Green beans, summer and early fall  
Green onions, spring through fall  
Horseradish, fall and winter  
Huckleberries, late summer and early fall  
Jerusalem artichokes/sunchokes, fall and winter  
Kale, best in fall and winter  
Kiwis, winter and into spring  
Kohlrabi, late fall through spring  
Kumquats, late winter and spring  
Leeks, fall through spring  
Lemongrass, summer and fall  
Lemons, winter and spring  
Lettuce, available year-round nationally but best in spring  
Limes, late summer and fall  
Mandarins, winter  
Mangos, summer  
Marionberries, summer  
Melons, summer and early fall  
Mint, year-round  
Morels, spring  
Mushrooms (cultivated), year-round  
Mushrooms (wild), spring through fall  
Nectarines, summer  
Nettles, spring  
New Potatoes, spring  
Okra, late summer and early fall  
Onions, spring through fall (stored in winter)  
Oranges (Navel), winter and spring  
Oranges (Valencia), spring and summer  
Oregano, year-round  
Parsley, year-round  
Parsnips, fall through spring  
Peaches, summer  
Pears, fall  
Pea greens, spring  
Peas and pea pods, spring and early summer  
Peppers (sweet), summer and early fall  
Persimmons, fall and early winter  
Plums & pluots, summer  
Pomegranates, fall  
Pommelors, winter

Potatoes, late summer through fall but available from storage year-round  
Pumpkins, fall  
Quinces, fall  
Radicchio, late summer through early spring  
Radishes, spring through fall  
Radishes (daikon, watermelon, other large varieties), fall and winter  
Rapini, fall through spring  
Raspberries, summer  
Rhubarb, spring and early summer  
Rosemary, year-round  
Rutabagas, fall and winter  
Sage, year-round  
Salsify, fall and winter  
Scallions, spring through fall  
Shallots, summer and fall (from storage through winter)  
Shelling beans, summer and early fall  
Snap peas/snow peas/pea pods, spring  
Sorrel, year-round  
Spinach, year-round  
Spring Onions, spring  
Squash (summer), summer  
Squash (winter), fall and winter  
Stinging Nettles, spring  
Strawberries, spring and summer  
Sunchoke/Jerusalem artichokes, fall and winter  
Sweet Onions, spring and summer  
Sweet potatoes, fall and winter  
Tangerines, winter  
Thyme, year-round  
Tomatillos, late summer  
Tomatoes, summer  
Turnips, fall through spring  
Watercress, year-round  
Watermelons, summer  
Winter Squash, fall and winter  
Zucchini, summer  
Zucchini Blossoms, summer

“Not that we eat all of those things but with the drought, some of the things we do eat cost almost double or triple. California grows about 80% of all fruits and vegetables in the US, so California seasons, such as they are, are in some ways, national seasons. That is, you may not be able to get something locally, but even buying nationally keeps you in touch with the hemisphere's seasons, which is something.”

“Don't we grow enough for our needs in the greenhouse?”

“We could if we added another 60 feet onto the 90 feet we have.”

“You’ve got their number give them a call and have them ship 60 feet. We can put in the foundation and erect the additional 60 feet. Or, if you want, have them ship 90 feet and we’ll just double it. Heaven know we have enough power for another 90 feet of grow lights.”

“Good, that will give us the room we need to grow the wheat, corn, oats, beans and rice seed you want.”

When Mama is happy, I’m happy. I haven’t heard from my mother since she said “While I never.” So, unless Jacob is carrying tales, she doesn’t know she has 3 grandchildren. Jacob probably told Fred, but did Fred tell my mother?

We’ve done a few drills to improve our response times in case trouble comes our way. These were daylight exercises and unannounced. The overall purpose was to time how long it took to close the gate and add the backing pipes plus have the 8 towers staffed. The first drill was a disaster. The gate was closed, but the power left on and the pipes weren’t inserted behind the gate. The last person to arrive at his tower position arrived 23 minutes after Ramón called the Red Alert.

In the made for TV film *Red Alert* starring William Devane, Adrienne Barbeau and the late Ralph Waite, a computer at a nuclear power plant malfunctions and receives erroneous information of a radiation leak. It seals off the compound, trapping the crew inside. I only saw it once and I don’t remember it being quite the way it was described. I remember this:

*Red Alert* was filmed in 1977 with William Devane plays the role of Frank Brolen, Michael Brandon plays the role of Carl Wyche, and Adrienne Barbeau plays the role of Judy Wyche. In a small town in Minnesota sits a nuclear power plant that goes into meltdown followed by a sudden explosion. Enters Frank Brolen and Carl Wyche who must figure out what started the meltdown. Enters Henry Stone who's the plant manager and he's the by the book type.

When employees start to die Stone orders the plant in lock down mode. Wyche calls his wife Judy and tells her to get out of town and fast. Brolen and Stone get into an argument over the lock down which leads to Wyche going in any way. Things start to get worse and it's up to Brolen to get in to not only rescue his Partner but the other workers.

And it must have not melted down; there was no BIG explosion at the end. That’s the kind of movie the SyFy channel should show instead the crap they have made and show over and over and over... If I never here word shark again, it will be too soon. Devane is a Sierra Hotel actor.

I think maybe Ginger is right; I’m starting to have TOM’s associative memory... Anyway we did better on the second drill and came in at 14 minutes.

“Not good enough, Ramón. I want everyone in place within 5 minutes. Ginger says that’s unrealistic so, I’ll set for 7½ minutes. And, that means everyone on the wall, the gates locked, posts in place and power off. Women not on the wall will be in shelters with the children locked down. I’m going to buy a used D-10 to roll up to the gate as backup and I expect it to be in place, once it’s delivered.”

“Be reasonable Cal, you can’t expect that kind of reaction time from our people.”

“Sure I can because if I don’t get it, they won’t be ‘our people’ ‘cause they’ll be working for someone else.”

“Hank, you agree with Cal?”

“He’s the Boss; it doesn’t matter what I think. I’ll have a word with the ranch hands and you talk to your staff. I was the first person Cal hired and I don’t want to be the first one fired because of this. I’ll make my people understand that they better plan on carrying the military hardware all the time. That shouldn’t be a problem for your people; I think they must sleep with their firearms.”

“They only have 2 minutes to be dressed, armed and out the door, Hank.”

“Doesn’t apply to their Boss, huh?”

“Fill your hands, you S-O-a-B!”

“Huh?”

“Nothing, always wanted to say that since I saw *True Grit*, with John Wayne.”

“God do I miss John Wayne. I heard that he always felt bad that he didn’t serve in World War 2.”

“He did more staying home and raising everyone’s morale. Which was your favorite film?”

“There are too many to single out one. I suppose his final film *The Shootist*, put him in the best light.”

“I suppose so, with Lauren Bacall and Ron Howard. Several big name stars, James Stewart, Hugh O’Brien, Richard Boone, Bill McKinney, Harry Morgan, John Carradine, Sheree North and Scatman Crouthers. I liked the flashbacks from his old movies that created the JB Brooks legend.”

Author Note; I met Scatman Crouthers in a Target Store in Los Angeles in the early 1980s. He was delighted to be recognized by so many of the patrons.

“Have we done all of this for nothing, sweetheart?”

“What do you mean nothing Cal? We employ 80 people in honorable jobs that earn them a good income. In the process we’re providing a real future for our children and a means to survive and prosper regardless what the future may bring. We can feed the surviving population of Eloy in case of a catastrophe in nearly every circumstance. We have backups 3 and 4 layers deep. What more for one ask for?”

“First, my ulcers healing up. Second, the country returning to what made it great during the first 200 years of its existence. And third, peace in our time, above all else.”

“You don’t want much do you?”

“I don’t think so. All it would take would be total nuclear disarmament.”

“That isn’t going to happen.”

“Scary thought isn’t it?”

“Don’t worry about things over which you have no control. If nothing else, that should help your ulcers heal.”

“You do know that’s easier said than done.”

“For you maybe; I basically live one day at a time.”

“We drank up the Cristal celebrating the Comet missing the ranch. Let’s make up a list of what we need to fill in and drive up to Phoenix and fill those holes.”

“Let me check the liquor inventory sheets and the back stock. We might as well take the Bob truck and fill anything else that the Warehouse has slipped.”

“I’ll add the trailer behind the Bob and we’ll do it all in one trip.”

“Grab ten bundles of Ben Franklins.”

“Maybe we should take a semi and 40 foot box trailer.”

“The Bob and trailer will be enough.”

“You considering some high ticket items?”

“Not specifically; but you never know what we might find.”

The trailer was filled with Charmin and feminine hygiene supplies. The front part of the Bob held the liquor plus what we picked up at the supermarket; prawns, fillets, New York strips, shrimp cocktail sauce, romaine lettuce, croutons, lunch meat, sandwich loaves and an assortment of condiments plus a case of French Market coffee for special occasions. Our dealer was out of full auto weapons, but we didn't really need any. She picked up several bags Ore-Ida shoestring fries and battered shrimp for the kids, one of their favorite meals. After the last stop we headed home.

Halfway between Phoenix and Eloy, a call came over the business band radio.

"Red Alert, Red Alert. This is not a drill."

"Ramón, Ginger. Sitrep?"

"Where are you?"

"About halfway home."

"We have a large well-armed crowd generally focusing on the gate."

"Cal says to give them a reason to leave using the Mike 240 Bravos and Mike 2 Alpha 1s."

"We already tried that."

"Cal asked if you shot over their heads?"

"Affirmative."

"He say to lower the point of aim to their feet."

"Ginger, Ramón, no go."

"He says fire for effect (that volume of fires delivered on a target to achieve the desired effect)."

"Ginger, Ramón, its working. They're scattering in the direction of Eloy."

"Cal says to move the security group to the Eloy off ramp; we're going to need protection getting this load of supplies home."

"We'll be there."

"Maintain the Red Alert status until we get home."

"Copy."

Our Red Alert required all towers to be staffed and with the remaining employees at the site of the greatest threat. Sprinklers weren't used unless the opposing force tried to cross the canal. Wetting the Bentonite took little time with the water being supplied by the 6 12 inch wells.

When we arrived home, I directed Ramón to close the gate and block it again. Staff would be in the towers for the next 24 hours and Ramón was instructed to get with Hank and come up with a guard rotation. Two of the hands helped unload the truck into the Warehouse. Over the next day or two Ginger and I would box up the booze to be moved to the dome. As a just in case measure everyone not on the walls or in the towers would stay in the shelters when off duty.

"What was that all about?"

"Beats me, Cal. We have a garden that produces about the amount of food we eat in a year and you can eat alfalfa... sprouts, but I personally don't care for them. Maybe all the semis delivering food sparked some interest... but no one knows what you've accumulated. The gold and silver might be an exception since it's usually delivered in armored cars but you can't eat gold and silver."

"You can't eat it, but it would allow them to raise cash to buy what food is available."

"Is that the next one? Not enough food to go around?"

"We don't have any trouble growing food and buying what we don't grow. If they can grow cotton, they can grow food."

"It's different for the ranch and you know it."

"It is; I'll admit that. We grow our own food and sacrifice a portion of the profits to keep everyone's freezers filled with beef, pork, chicken and fish. We bake our own bread and we maintain a stock of food in the Warehouse for a minimum of 10 years for everyone on the ranch. We probably have enough guns, ammo and backups to last through World War ten. If we give it away, we won't have it and what good would that do anyone?"

"What would it hurt to set aside 40 acres for the residents of Eloy to grow food?"

"We get five large bales of alfalfa per acre, 12 times a year. You figure it out Ramón; 40 times 5 times 12 times \$100 is how much?"

"Uh \$240,000."

## The Dome II – Chapter 26

“That doesn’t make sense. You once said that alfalfa generated \$15,360,000 per year. Total acreage of 2,560 divided by 40 equals 64 and 64 times \$240,000 equals, un, never mind. What’s a quarter of a million per year to you Cal, you’re filthy rich?”

“Let’s say we turn the ranch over to our 3 children in 20 years. Twenty times \$240,000 equals \$4,800,000 divided by 3 means each child get shorted \$1.6 million dollars.”

“Just how much of your annual net income are you investing in gold and silver coins?”

“About 25 percent.”

“How much is about 25 percent?”

“Not that it’s any of your business, but \$2.5 to \$3 million a year, most years. That buys 1,500 to 2,000 ounces of gold per year or a lot more silver. The standard ratio between gold and silver historically is about 50 to 1, but it varies. The last few years it’s been running over 60 to 1.”

“So what will happen to what you have when there’s a precious metals recall?”

“Nothing; we’ll erect drywall over the vault doors since the vaults are outside the footprint of the basement walls and no one will notice.”

“Just how much do you have?”

“We’ll never make Forbes billionaires list. Otherwise it’s none of your business Ramón.”

Each of the 3 vault doors used the same three numbers in their combinations, in different orders. One number was the year of James’ birth, the second was the year of the twins’ birth and the third was the day of Ginger’s birth. All of the numbers were between 0 and 31, a delightfully unlikely combination on dials that went from 0 to 99. But was it L-R-L or R-L-R? Or, did it vary by vault?

Fifteen years of expansion and precious metals purchases every year with some years more than others. We obviously had more gold than silver because all the silver was contained in  $\frac{2}{3}$  of the space available to store gold and had room for more. The problem with gold was that even the  $\frac{1}{10}$ <sup>th</sup> ounce contained too much value for most transactions in a PAW economy.

I see that I’m page 114 of part II of my journal and there hasn’t been much action compared to part I of my journal. What can I say, things happen when they happen and I just record them for Ginger to read and offer comments. You think I didn’t know she was reading journal? Think again, we are muy cerca.

“Don’t know what that means? It’s not the same as muy simpatico, but its close. I even gave you a hint. But that doesn’t mean we’re going to grow vegetables and fruit for you. Tomato is a fruit, not a vegetable and though they’re a member of the nightshade plant family the fruit isn’t poisonous; just the leaves are. It’s officially at 12 down and 15 to go.

And then, it was like I got slapped upside the head by a stroke of lightning. I hadn’t been keeping track of Russia’s or China’s boomer fleet. Russia had 8 of the Borei class commissioned and in service while China wasn’t officially saying which undoubtedly meant more. By what logic was Russia and China allowed to increase their boomer fleets while the good old US of A was required to reduce the number of missiles and warheads?

On August 2, 2011, President Obama signed the Budget Control Act of 2011 as part of an agreement with Congress to resolve the debt-ceiling crisis. The Act provided for a Joint Select Committee on Deficit Reduction, the “super committee”, to produce legislation by late November that would decrease the deficit by \$1.2 trillion over ten years. When the super committee failed to act, another part of the BCA went into effect. This directed automatic across-the-board cuts, known as “sequestrations”, split evenly between defense and domestic spending, beginning on January 2, 2013.

The sequestration became a major topic of the fiscal cliff debate. The debate's resolution, the American Taxpayer Relief Act of 2012 (ATRA), eliminated much of the tax side of the dispute but only delayed the budget sequestrations for two months, thus reducing the original \$110 billion to be saved per fiscal year to \$85 billion in 2013. And then, came the exceptions.

Sequestration didn’t actually end until 20Jan17 when the new Republican President was sworn in. Congress had been sworn in earlier on 3Jan17, a Tuesday. By the time the new President sat down at his desk in the oval office, legislation was on his desk to repeal the Budget Control Act of 2011. It was good way for him to appeal to those who elected him, the conservatives; he signed it.

Because we didn’t really have room to store more ammunition, we replaced what we shot. When the people from Eloy were at the gate, only a few cans of ammo were expended, Ramón was very conservative of the belted ammo. We had 200 round cans of 7.62, 100 round cans of .50BMG and when the 40mm cartridges are linked into belts with M16A2 links for the Mk 19 grenade machine gun, the M548 ammo can will hold 48 rounds, called the ‘USMC Pack,’ of belted 40mm×53mm grenades. What one doesn’t know, one learns.

That applies to everything, not just the military ammo. If you want to clear leather in a hurry with your Vaquero, you practice. But, never forget the lesson John Payne gave on *The Restless Gun*, you have to shoot accurately before you learn to shoot fast. On April 23, 2013, Timeless Media released *The Restless Gun-The Complete Series* on DVD in Region 1, North America. The 9-disc set features all 78 episodes of the series.

Don't remember the name of the episode where he taught the kid the lessons and ended up shooting the kid. Dale Robertson's *The Tales of Wells Fargo* had a similar story where the emphasis was only loading five rounds in a Colt six shooter. Knowing he was being set up, Jim Hardie loaded the 6<sup>th</sup> round in his Colt. Most of the TV westerns were set in the period before smokeless powder. Black powder generates a lot of white smoke... it's all in the details. White smoking would interfere with the filming.

Sorry, got off the subject, again. The subject was my lack of attention to Russia's and China's growing boomer fleets. China has to have at least 6 Type 094 Jin class and in 2 years, Russia will have all 10 Borei class, 3 Block I and 7 Block II. Our new President doesn't impress me of being the sort to back down, unlike our previous President. Reagan, Bush Sr., Bush Jr. and the new guy seem to be cast from the same mold. Reagan and both Bush's went to war, whether it was called for or not (Iraq). Clinton launched cruise missiles and Obama did nothing except cause sequestration and Obamacare. Though intended for the poor who couldn't afford health insurance; the poor were the largest group not to sign up for Obamacare.

Well, that's not fair, he sent F-22 to the Middle East and F-16s and F-15s to allies when Russia invaded the Crimea. The name rang a bell:

Half a league, half a league,  
Half a league onward,  
All in the valley of Death,  
Rode the six hundred.  
'Forward, the Light Brigade!  
Charge for the guns' he said:  
Into the valley of Death  
Rode the six hundred.

It wasn't the slaughter I imagined... Killed: 110; Wounded: 161; another case of the Russians kicking butt. Putin was the Premier from 1999-2000 and then, acting President from 1999-2000 when he was elected to his 1<sup>st</sup> 4 year term as President and he was reelected and was President from 2004-2008. Barred from a 3<sup>rd</sup> consecutive term, Dmitry Medvedev, his First Deputy Prime Minister was elected in his stead. In a contested election, he became President again in 2012 and then again in 2016. Dmitry Medvedev should get his next chance in 2020. Russia was still in Georgia and Ukraine; a presence at least. When Putin was Prime Minister, he did the things he couldn't do as President. The Borei class will be finished in 2020 and he'll probably become Prime Minister in 2020. It's food for thought. And, if I understand Chinese politics, Xi Jinping's term in office should run from 2012 to 2022.

The facts give a target date, 2020, for disaster number next (13?). Not that I believe in TOM's harebrained idea that bad things happen 3s, but it's working so far. By the way, the Charge of The Light Brigade was caused by a misunderstood order. The Captain who poorly forwarded the order, Louis Edward Nolan 4 January 1818 – 25 October 1854, was killed in the charge. So there wasn't anyone to blame. In those days, com-

munications didn't travel at the speed of light and the Britain didn't know what happened for 3 weeks. Alfred, Lord Tennyson's poem was published December 9, 1854 in The Examiner, about 3-4 weeks after the news reached London.

They probably don't teach it in public schools these days because it 'glorifies war'. The one thing about war everyone should note is that there's nothing glorious about war. It's a dirty, nasty and bloody period that puts 2 opposing forces against each other doing their best to kill each other. If he'd just turned around and went home when they tried to bomb his car, he and his wife might have lived and we would have avoided World War One. We've only avoided World War Three because it is too terrible to think about. One of these days... Yep, I do sound like TOM.

*It was evident that the Free World has considered America as the Lord Deliverer and Protector. Surely America is a great country, wealthy and very advanced. But so was the Roman Empire in its own time. Wealth is not a precondition of power and history tells that the richer a nation grows, the weaker it becomes. It was not a wealthier or a more advanced nation that destroyed the Roman Empire. It was the barbarians! – adapted from Devil's Guard © 1971 George Robert Elford*

"Ginger, I'm convinced that Armageddon is right around the corner, in about 2 years."

"Why?"

"Why what?"

"Why are you convinced?"

"Russia is in Georgia and Ukraine for one thing."

"Russia is in South Ossetia and the Crimea, not Georgia or Ukraine."

"According to Ukraine and Georgia those are occupied territories."

"Ok, so what? They're a half-world away from Eloy, Arizona."

"Next point. Russia will have their fleet of Borei class SSBN finished in 2 years. They'll have 3 block I subs with 16 missile tubes and 7 block II subs with 20 missile tubes. Each tube can launch a Bulava missile with 6 warheads. That will give the Russians  $3 \times 16 \times 6$  plus  $7 \times 20 \times 6 = 1,128$  SLBM warheads. The Chinese must have completed their 6<sup>th</sup> type 94 Jin class giving them  $6 \times 16 \times 10 = 960$  SLBM or a grand total of  $1,128 + 960 = 2,088$  warheads."

"How many warheads did we deploy on the 14 Ohio class SSBNs?"

"Originally,  $14 \times 24 \times 8 = 2,688$ ."

“And you claim that new START forced the reduction warheads to 5 per missile as well as the number of missiles?”

“Actually, it’s 4. New START provides for further reductions in deployed launch vehicles, limiting the number of Submarine-launched ballistic missiles (SLBM) to 288, and the number of deployed SLBM warheads to a total of 1,152. Twenty-four times 14 = 336, so even with a single warhead, we can’t deploy all 336 missiles. Deployed warheads are limited to 1,152 or 82 per boat with 4 warheads per missile.”

“What is 288 divided by 14?”

“Twenty point five seven.”

“So, 2 SSBNs have 24 missiles and the other 12 have 20?”

“Right,  $2 \times 24 = 48$  and  $12 \times 20 = 240$  and  $48 + 240 = 288$ .”

“That’s dumb.”

“But, they can replace the Trident IIs with Tomahawk Cruise missiles.”

“How long did it take to convert the first four?”

“Eight years, 2002 to 2010. But they converted 96 tubes total. Twelve times 2 is only 24 tubes. They could do that in one to two years easily since they’ve done it 4 times already. As far as which 2 SSBNs to leave at 24 Trident D5 tubes, I’d choose the newest, the Wyoming and Louisiana.”

“And if we develop a supersonic or hypersonic cruise missile?”

“If it will fit in the space the tomahawk uses, it would be a direct swap.”

“Does anyone make a supersonic cruise missile?”

“The BrahMos is a supersonic cruise missile that can be launched from submarines, ships, aircraft or land. It is a joint venture between Republic of India's Defense Research and Development Organization and Russian Federation's NPO Mashinostroeyenia who have together formed [[BrahMos Aerospace](MINISTRY OF DEFENCE)] Government of India. The name BrahMos is a portmanteau formed from the names of two rivers, the Brahmaputra of India and the Moskva of Russia.

“It is the world's fastest cruise missile in operation. The missile travels at speeds of Mach 2.8 to 3.0. The land-launched and ship-launched versions are already in service, with the air and submarine-launched versions having completed in the testing phase. A hypersonic version of the missile, namely BrahMos-II, is also presently under develop-

ment with speed of Mach 7 to boost aerial fast strike capability. It was expected to be ready for testing by 2017.

“Though India had wanted the BrahMos to be based on a mid-range cruise missile like P-700 Granit, Russia opted for the shorter range sister of the missile, P-800 Oniks, in order to comply with Missile Technology Control Regime restrictions, to which Russia is a signatory. Its propulsion is based on the Russian missile, and guidance has been developed by BrahMos Aerospace. The missile is expected to reach a total order worth US\$13 billion. I don’t know the current status of that program.”

“So Russia could have the BrahMos cruise missiles?”

“Yes. But, they’re short range, 300-500km or 186-310 miles.”

“Fighter delivered?”

“Absolutely; unless Russia developed a model that could be launched from a submarine torpedo tube. It doesn’t matter, we’re not that close to any ocean. China has had the YJ-12 supersonic cruise missile since 2000 and the YJ-22 since the latter part of the 2000s.”

“Which country is the most advanced with supersonic cruise missiles?”

“India. They have 4 frigates equipped with the BrahMos and some diesel submarines as well as the INS Rajput, a guided-missile destroyer and the lead ship of the Rajput class destroyers of the Indian Navy.”

“How much room is there in the Warehouse?”

“We could probably up the food supply to 12 years for a 100 people. I don’t know about non-food products.”

“There’s room, we can always take them out the boxes shrink wrap them.”

“What are you talking about?”

“Feminine hygiene products, extra clothes and anything else that we can shrink wrap. I think I’ll go for 5 years for 100 people and order more 5 gallon pails but half as many. I’d better get busy, standing around isn’t getting it done.”

“Ramón, double the supply of the ammo except for the Remington .45-70-405. Can your friend at Camp Navajo get us more belted ammo and more of the grenades, etc.?”

“Nope.”

“Why not?”

“He’s retired same as me.”

“Well... can you get more belted ammo, grenades and etc.?”

“How much do you want?”

“World War 12.”

“Dig in your vault and get me 750 ounces of gold Eagles. I’ll bring back what I don’t need.”

“Will that be enough?”

“For 750 ounces, I can probably get them to deliver it.”

“Have it delivered to the Eloy exit and we’ll have trucks standing by. Meanwhile, I get the Tucson contractor started on another bunker.”

“What’s Ginger doing?”

“She’s ordering an additional 5 years of food from Oregon Freeze Dry, a few items from Walton Feed, grains from various sources and some miscellaneous items.”

“Please remind her to check the medical supplies and do an inventory. I’ve got some calls to make.”

“You’re not complaining. Why’s that?”

“Everyone gets lucky from time to time.”

He brought back 250 one ounce gold Eagles and we overloaded 4 40 foot trailers hauling the munitions from the exit to the ranch. The never went faster than 15 miles an hour to avoid problems with the loads. We left the munitions on the trailers until the new bunker was completed. The homestead had to be expanded, yet again, as it had been when the first bunker was constructed.

“Those LAVs will wear out before we use up the 25mm ammo Cal.”

“But you did get some of everything?”

“Oh yeah... World War 15.”

“But we only have 15 years’ worth of food on hand and or on order.”

“Not my department. You’re rich, build another Warehouse.”

“It’s just that I hate giving the job to Jacob and Fred getting the profit.”

“Fred who?”

“Fred Logan, my step-father. He’s the guy that married my mother and bought my half of the Ready Mix.”

“What’s the big deal? I mean that Warehouse is very well constructed and you could build a second behind it, add the air purifiers, tunnel and end up with 30 years of food for 100 people.”

“Don’t forget the double leaf doors to create 2 airlocks.”

“Spend the money Cal; you can’t take it with you.”

“It will just attract more attention to the ranch.”

“And having 4 40 foot trailers of ammo didn’t? What about the non-military ammo deliveries? What about the food deliveries’ of 5 years’ worth of food for 100 people? We’re on everyone’s radar from the Armored Car Company to the food suppliers to the folks in Eloy. Isn’t that why you had the canal dug and the berm erected; to keep everyone and his brother out?”

“Well, I suppose.”

Once this round construction was complete, the food, ammo and other supplies laid in; the notes in my journal didn’t indicate any significant activity around the world worth mentioning. Russia commissioned the 9<sup>th</sup>, and then the 10<sup>th</sup> Borei class and completed their sea trials, a fact noted in Wikipedia. Wiki also corrected the information on the type 94 Jin class reducing the number of missiles tubes from 16 to 12. Two additional type 94 Jin class were noted; but whoever wrote the piece said it wasn’t certain if they were new submarines or previously reported submarines. From satellite photos, all Jin class looked alike.

## The Dome II – Chapter 27

By the beginning of 2020 we had replaced all the gold expended and expanded our holdings. Russia was still sitting on South Ossetia and the Crimea. The US hadn't modified the Ohio class SSBNs and we presumed that 12 had 4 empty missile tubes and 2 had 24 tubes with D-5s. The process reported in the news was that the missiles were removed and replaced with a different missile with only 4 warheads. And, 12 of the SSBNs had 20 missiles switched and 4 removed.

Russia had inspected the agreed upon SSBNs and found one to have 24 missiles with 4 warheads and the second to have 20 missiles with 4 warheads. The inspection, done in accordance with new START, was done during 2017. Things were not as they appeared, however.

The missile swapping on the 2 inspected Ohio class was per the treaty. The missile swapping on the other 12 replaced the 24 missiles with 24 missiles with 8 warheads. After the inspection, the 2 inspected submarines were brought back up to design specifications, 24 missiles with 8 warheads each. Apparently the only reason they didn't increase that to 14 warheads per missile was the lack of warheads.

The US was up to 2,688 SLBM warheads again, exceeding the combined Russian and Chinese number of warheads. Didn't the new (conservative) Republican President trust the Russians and Chinese? Since the W-88 warheads were part of the 'enduring stockpile', the Trident II missiles were probably armed with 8 W-76 100kT warheads; they made approximately 3,000. There was no way to put 14 warheads on 336 missiles; we didn't have 4,704 warheads available.

China's 6 Jin subs and Russia's 10 Borei subs were reported to be half in port and half at sea. There was nothing to be excited about and Ginger was riding my hind end over talking her into increasing the food supplies. I was guilty of hiring Jacob and asking him to duplicate the Warehouse. I was innocent of deciding the new Warehouse should be as full as the original Warehouse. That was Ginger at Ramón's suggestion.

Each vehicle had a Magellan RoadMate 9270T LM Truck GPS and each person on the ranch had a Magellan eXplorist 310 Handheld GPS with the World Edition map including a complete road network for the US, Canada, Western Europe and Australia as well as major roads throughout the rest of the world and the optional Topographic maps downloaded for enhanced and expanded mapping coverage.

It was with some consternation when we discovered our GPS receivers weren't working after June 15, 2020. The US had 36 GPS satellites in orbit as of January 2019. It takes 4 satellites to establish your position. That was probably the only good Executive Order Clinton ever issued; on May 2, 2000 "Selective Availability" was discontinued as a result of the 1996 Executive Order, allowing users to receive a non-degraded signal globally. Why not Garmin? Why Garmin over Magellan? Six of one and a half dozen of another. (Got a bulk purchase discount on the Magellan's.)

Everyone was sticking close to the ranch these days because Stella was home schooling all of the children and adolescents right here on the ranch. Instead of monthly supply runs to Tucson or Phoenix, Ginger would order the supplies and pay for delivery. They can't get you if you never leave. Plus everything was kept topped off religiously. The guy producing biodiesel had called it quits and Ginger was looking for an alternate supplier.

The pails of food should be good to the year 2525, if man is still alive and woman can survive. The Oregon Freeze Dried products should be good for quite some time due to storage conditions and stock rotation. I took the time to check the NWS SAME radios, replacing all the batteries with new lithium ion batteries. The CP-200s and portable CBs were also checked and the batteries replaced. As my level of tension increased it seemed to be affecting everyone on the ranch.

"Here, take this."

"What is it?"

"A chill pill. You're driving everyone crazy with your worrying. And not to make it worse, but 2 Borei class and 1 Jin class sailed today."

"I just think it's time."

"Time for what?"

"Time to bend over and kiss my butt goodbye."

"You can't do that."

"Why not?"

"Because we're in charge here and Hank and Ramón are our principal advisors. The four of us are what binds the ranch into a cohesive unit able to take on all comers'."

"What are you doing with the fish?"

"Filleting them, sharp freezing them and storing in the drive-in freezer."

"Have you contacted the food banks and Churches in Eloy?"

"Let them eat cake!"

"Better we should donate the fish to Eloy, even if it's done anonymously."

"Ok. We'll pack it in Mylar bags and pass it out to the Churches, using a freezer trailer."

“How does that differ from a refrigerated trailer?”

“Same thing, cranked down to 0°F.”

“We’d best do it on a Saturday afternoon so it doesn’t thaw before Sunday service.”

“Ok if I take a few security guys to prevent me from getting hijacked?”

“Why don’t we just get the security guys to deliver the fish?”

“Don’t trust me?”

“I don’t trust some of the residents of Eloy. There’s no sense in you looking for trouble.”

“Just what put a burr under your saddle?”

“The GPS going down is not natural. The Russians have their own system called GLOSNASS, the Chinese have their own system called known as COMPASS or Bei-Dou-2, the European Union’s system Galileo became active last year and India’s Indian Regional Navigational Satellite System (IRNSS) became active in 2015. On top of that you told me 1 Jin class and 2 Borei class sailed. That puts 4 Jin and 7 Borei at sea. Where did you get the information?”

“The ham net we monitor 24/7.”

“Speculation or hard facts?”

“Hard facts. The speculation was that the other 2 Jin class and other 3 Borei class were loading provisions and getting ready to sail.”

“I knew it! Give me another chill pill; I think it’s going down.”

“Gee-Tee-Dubya?”

“Gee-Tee-Dubya!”

“I’ll call TOM.”

“You have his number?”

“He put it in several stories.”

“Did you reach him?”

“Yep.”

“What did he say?”

“He said he was getting warmly dressed and going to sit in the front yard and catch one when it landed.”

“He’ll be 77 on 3/23/20. I guess he won’t get his wish.”

“What wish?”

“He claims his goal in life is to live one day longer than his father. His father was about 78½ when he died.”

“They didn’t get along?”

“Fire and ice! While you were on the phone I told Ramón to have his staff load half the fish from the drive-in into a refrigerated trailer set to zero and for 4 of his staff to deliver the trailer to Eloy and drop it. Afterwards, they’ll notify the local ministers about the fish so the ministers can dole it out on Sunday.”

“Just like that?”

“I instructed them to tell at least 3 ministers so 1 didn’t claim it all for his congregation and they were instructed to tell the 3 to pass the information around to the other ministers.”

“I’d better check the freezers in the shelters for fish because there’s no tunnel to the drive-in.”

“Sorry about that; it just wasn’t practical. Make sure the ham net is monitored 24/7.”

“We’re already doing that. It gives the teens chances to earn pocket money. Although I don’t know why they need pocket money because nobody leaves the ranch.”

“It’s better than a FEMA camp!”

“Are you sure? Have you ever been in a FEMA camp?”

“No, but the stories....”

“Are just stories.”

She had a point, but that file on my computer that identified ~630 FEMA camps wasn’t fiction. It even included pictures and although the camps weren’t staffed, the gates and

razor wire was in place. It wouldn't take much to staff the camps to begin accepting people being 'relocated' after an emergency.

Would we need to be 'relocated' after an emergency? I can't see why. The horses would have to settle for alfalfa instead of alfalfa pellets and we'd have to cut our alfalfa production back to 1 section or less. Instead, we'd plant wheat, corn, oats, beans, rice and barley (for COB). Yes, we had barley seed; I didn't mention it because it was primarily for the horses.

All the horses were ridden often enough to avoid their becoming frisky. James, Kathleen and Jennifer were growing up and riding their Barbs every day on the family outing. They had graduated to larger caliber rifles (1892, .45 Colt) and Single Six's.

When the 4 security people returned after delivering the fish, they locked the gate and parked the Peterbilt with its ISX12 engine, one of our over-the-road tractors. Even as they dismounted, the radios announced "Red Alert, Red Alert. We have incoming missiles."

Some screwed up and it wasn't yours truly. It was worse than I imagined, the missiles weren't ICBMs, but SLBMs. They were launched from various locations in the Pacific, 71 successful launches; and from the Atlantic, 185 successful launches. One doesn't have to be Albert Einstein to realize that the 2 nations behind the attack were China in the Pacific and Russia in the Atlantic. The Chinese had 72 missiles on their 6 boats and Russia had 188 missiles on their boats. All 450 Minuteman III missiles were launched without a single failure to launch.

The Russians and Chinese might have suspected our duplicity regarding the Ohio class SSBNs, but they never publically challenged the US. What occurred behind closed doors will forever remain a mystery. A larger percentage of the Russian population was sheltered than the percentage of the Chinese population. China had people to spare. Both countries had to assume we'd launch on warning, with our Minuteman III missiles. They hadn't counted on 336 missiles with a total of 2,688 warheads being available from the SSBNs. Their SS-18 Satan missiles had all been decommissioned by 2009.

The SS-18s (R-36M) were replaced by single warhead RT-2UTTKh (Topol-M2) with 800kT warheads and Topol-M1 with up to 10 warheads. It was speculated that in 2020 the RVSN are likely to be equipped with 177 Topol-M (mobile and silo-based), as well as 30 UR-100NUTTKh (SS-19) with up to 6 warheads each and 108 RS-24 Yars (SS-29), mobile and silo based missiles.

I assume that China attacked Russia with all of their missiles that would reach Russian targets and Russia reciprocated, missile for missile. With the advanced warning and practice alerts, every head of livestock and every person on the ranch was sheltered before missile warheads hit Phoenix and Tucson. The freezers were fully stocked and we actually had room to spare. The tunnel network that Percy had worked out gave us access to every building except the drive-in freezer.

The automatic transfer switches cut us from the grid when the grid went down. We had power to last 'forever and a day' plus food for 30 years and ammo for World War 15. Somehow I doubted that there would be a World War 4. Both China and Russia targeted counter-value targets. In military doctrine counter-value is the targeting of an opponent's assets which are of value but not actually a military threat, such as cities and civilian populations. Counter-force is the targeting of an opponent's military personnel, forces and facilities.

The rationale behind counter-value targeting is that when two sides have both achieved assured destruction capability – that is, that the nuclear arsenals of each side have the apparent ability to survive a wide range of counter-force attacks, and carry out a second strike in response – then, in an all-out nuclear war, the value of targeting the opponent's nuclear arsenal diminishes, and the value of targeting the opponent's cities and civilians increases. This line of reasoning, however, assumes that the opponent values its civilians over its military forces.

One view argues that counter-value targeting upholds nuclear deterrence because both sides are more likely to believe in each other's no first use policy. The line of reasoning is that if an aggressor strikes first with nuclear weapons against an opponent's counter-value targets, then, by definition, such an attack does not degrade the opponent's military capacity to retaliate.

The opposing view, however, counters that counter-value targeting is neither moral nor credible because if an aggressor should strike first with nuclear weapons against only a limited number of a defender's counter-force military targets, the defender should not retaliate in this situation against the aggressor's civilian populace.

The AMP 200, AMP 100 and AMP 50 were connected and we were waiting for radioactive fallout. It was like the nuke in San Diego, only different. San Diego was a known attack, hours before the radiation would reach us. Phoenix and Tucson were pure speculation and much closer.

My paranoia finally paid off in spades. And, we've received initial fallout, from somewhere.

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## The Dome III – Chapter 28

“Well, crap. I’d have been perfectly happy to have been wrong, you know.”

“Cal, with what Ginger and you have amassed, you’re in a perfect position to set yourselves up as King and Queen of Arizona.”

“With you as Court Jester, Ramón?”

I picked up the mike to the intercom. “Hank, what’s the status of the livestock?”

“They’re watered, fed and bedding is down. The float valve will keep the water troughs filled and the horses will require the most attention because of constant feeding of small quantities of grain, hay and alfalfa pellets. I think we should have bought a machine to make the alfalfa pellets, Cal.”

“You’re probably right Hank; they say hindsight is 20/20.”

“The reason I didn’t bring it up is because the pellets are only a supplement to the alfalfa forage they get. If we had draft horses actually working, we’d have to plant Timothy, so they don’t bloat. Timothy is commonly grown for cattle feed and, in particular, as hay for horses. It is relatively high in fiber, especially when cut late. It is considered a harsh, coarse grass little relished by livestock if cut earlier. It is considered part of the standard mix for grass hay and provides quality nutrition for horses.”

“We’re going to have to cut alfalfa production drastically and grow wheat, corn, oats, beans, rice and barley. We’ll also have to get a large garden put in, maybe 40 acres.”

“The wives and teens are barely able to do 20 acres, Cal.”

“Not all at once, 20 acres twice. Some of the men are going to need to help on that. Mostly the men who work harvesting alfalfa continuously will probably end up helping with that. We’ll rotate those men between the garden and the other crops. There a certain pieces of equipment that we don’t have like a planter we’ll have buy or salvage. Another item is a cultivator plus plow, disk and drag.”

“Have you considered Nuclear Winter?”

“Considered, yes. That’s something over which we have no control. The guy we hired to plow the various fields always used 5 John Deere tractors with pull type 10-bottom plows. We’ll need heavy, four wheel drive tractors. We’ll also need cultivators. Presuming we can find what we need; we’ll salvage first and pay for them as our other option.”

“The two most likely places to find that equipment are Phoenix and Tucson.”

“Assuming they’re still there. We’re already getting fallout so I assume one or both were targeted.”

"Phoenix is the capital so that makes sense; but why Tucson?"

"Davis Monthan Air Force Base which has a 3.3 Megawatt (MW) ground-mounted solar photovoltaic (PV) array and a 2.7 MW rooftop-mounted PV array, both of which are located in the Base Housing area. Then there’s that 14.5 MW PV field on the northwestern side of the base. Plus the significant number of high-tech industries, including government contractors. For example, Raytheon Missile Systems, Texas Instruments, IBM, Intuit Inc., Universal Avionics, Sunquest Information Systems, Sanofi-Aventis, Ventana Medical Systems, Inc., and Bombardier Aerospace all have a significant presence in Tucson. Roughly 150 Tucson companies are involved in the design and manufacture of optics and optoelectronics systems, earning Tucson the nickname ‘Optics Valley’."

“When did you learn that Cal?”

“I got bored one day, Ginger, and looked up Tucson on Wikipedia. It was almost more interesting than Phoenix so I copied the page into a Word file for future reference and also saved it as PDF file. It could turn out to be a shopping list.”

“The best shopping list out there is the Yellow Pages.”

“Once you know what you want, yes. My PDF file tells me what’s generally available in Tucson.”

“It would be the closest location for fuel Cal.”

“Where’s that breeder we get the Andalusian stud services from?”

“Oro Valley, north of Tucson.”

“Maybe we can still get stud services.”

“It doesn’t matter.”

“Why not?”

“He called a while back and had 2 different proven studs he was looking to unload. It was a good price, so I bought them.”

“And you were going to tell me when?”

“I just did. On a hunch I called the Barb breeder and he also had 2 proved studs out of different lineages so I bought those too. Since most of our horses are Quarter Horse stock horses I located 4 proven Quarter Horse stock horse studs. Then, I got another

Lipizzaner stud and talk about expensive. I also picked up 2 unrelated Black Angus bulls and 2 unrelated York boars.”

“Planning ahead were you?”

“You damn betcha. I also bought a huge supply of hoses, engine, transmission and other tractor parts along with enough oil for 10 years. Anything I missed can be fabricated.”

“How?”

“Have you looked in the machine shed lately?”

“No; what would I find?”

“Among other things, machines. You know, a metal lathe, milling machine, wood lathe and the new Warehouse has enough factory horseshoes to keep our horses shod for years.”

“Hank, did you know about the horseshoes?”

“I helped her order them, Cal. We moved the forge to the machine shed to centralize all various repair functions. I suggested she get a hydraulic hose crimp machine, fittings and spools of hoses of different sizes. Frankly, I’m surprised it was Ginger and not you selecting the equipment. She seemed to know what she wanted so I just pointed her in the right direction.”

“Like I’ve said before, we’re a team. What one of us doesn’t know or think of the other seems prepared to cover.” (he-he-he)

“If that’s the case, Cal, why was it Ginger who directed me to buy more ammo?”

“Ramón you said we were covered to World War 15!”

“Would you rather have it and not need it or need it and not have it?”

“Hey, that’s MY argument for buying more ammo.”

“She must have been listening, Cal.”

“So where do we stand on ammo?”

“We’ll be very old and gray before we’re using Pyrodex. Just in case, we planted 6 willow trees, got a ton of sulfur from Louisiana, and got 7½ tons of potassium nitrate both products packed in sealed barrels. That just in case we live that long and run out of Pyrodex. We also increased the number of primers to cover the black powder.”

I think I created a monster. I wanted to be prepared come what may. We have enough explosives that one small diameter bomb might cause an explosion destroying everything within the berm. It could depend on which SDB they used; SDB I (Boeing) or SDB II (Raytheon). The Boeing model was for fixed targets and the Raytheon model was for moving targets. Either could be carried by the A10, F15, F16, F22, F35, B1, B2 or the B52.

We used intercoms with microphones to eliminate much of the background noise. When I was updated on the radiation readings, 965R/hr, I notified the other two shelters. We could make our first check outside at 67 days when the radiation should be about 475mR/h. One hour after the detonation, the radiation level at ground zero is 3,000R/hr. The one hour delay allows the short lived isotopes to decay to zero. There wasn't much wind and what there was seemed to change directions randomly, confusing the source of the radiation.

That spreadsheet is only a guide. It should track accurately, depending on the circumstances. Given our location, we could get radiation from other places like Palo Verde, Los Angeles and Plant 42 located in Palmdale. I suppose, depending on wind direction, the list could include Diablo Canyon. San Onofre had been shut down in 2013 and during March 2014, Southern California Edison began selling off non-radioactive equipment from the former nuclear plant. You know, on second thought, maybe China would hit San Onofre because the shutdown was supposed to take years and one of the last things to be removed would be the radioactive material when they could find somewhere to store it.

The Waste Isolation Pilot Plant, or WIPP, is the world's third deep geological repository (after closure of Germany's Repository for radioactive waste Morsleben and the Schacht Asse II Salt Mine) licensed to permanently dispose of transuranic radioactive waste for 10,000 years that is left from the research and production of nuclear weapons.

It is located approximately 26 miles (42 km) east of Carlsbad, New Mexico, in eastern Eddy County, in an area known as the southeastern New Mexico nuclear corridor which also includes the National Enrichment Facility near Eunice, New Mexico, the Waste Control Specialists low-level waste disposal facility just over the border near Andrews, Texas, and the International Isotopes, Inc. facility to be built near Eunice, New Mexico.

Various mishaps at the plant in 2014 brought focus to the problem of what to do with a mounting stockpile of spent fuel, from commercial nuclear reactors, currently stored at individual reactor sites. In 2010, the USDOE mothballed plans to develop Yucca Mountain nuclear waste repository in Nevada. (Thanks, Harry!) A lot of the used fuel rods were being stored in dry casks located at the nuclear facility that had used the fuel rods. When a plant was shut down the fuel was left in the reactor to cool down. If the intent was to refuel the reactor, the cooled fuel rods were transferred to dry cask storage.

Dry cask storage is a method of storing high-level radioactive waste, such as spent nuclear fuel that has already been cooled in the spent fuel pool for at least one year and

often as much as ten years. Casks are typically steel cylinders that are either welded or bolted closed. The fuel rods inside are surrounded by inert gas. Ideally, the steel cylinder provides leak-tight containment of the spent fuel. Each cylinder is surrounded by additional steel, concrete, or other material to provide radiation shielding to workers and members of the public.

There are various dry storage cask system designs. With some designs, the steel cylinders containing the fuel are placed vertically in a concrete vault; other designs orient the cylinders horizontally. The concrete vaults provide the radiation shielding. Other cask designs orient the steel cylinder vertically on a concrete pad at a dry cask storage site and use both metal and concrete outer cylinders for radiation shielding. Currently there is no long term permanent storage facility; dry cask storage is designed as an interim safer solution than spent fuel pool storage.

“Where do you think you’re going?”

“There’s no think about it Cal, I’m going with you to check things out.”

“But Ginger, the level of radiation is over 450mR/hr.”

“I don’t care. You can take it to the bank that I don’t care...”

“Where have I heard that before?”

“It’s The Foster Doctrine.”

*The Foster Doctrine comes from Pam Foster of Pamela Foster and Associates in Atlanta. It’s a very simple doctrine:*

**WHAT’S ALL OF THE FUSS?**

*“Are we fighting a war on terror or aren’t we? Was it or was it not started by Islamic people who brought it to our shores on September 11, 2001?”*

*“Were people from all over the world, mostly Americans, not brutally murdered that day, in downtown Manhattan, across the Potomac from our nation’s capital and in a field in Pennsylvania? Did nearly three Thousand men, women and children die a horrible, burning or crushing Death that day, or didn’t they?”*

*“And I’m supposed to care that a copy of the Koran was “desecrated” when an over-worked American soldier kicked it or got it wet? Well, I don’t; I don’t care at all.*

*“I’ll start caring when Osama bin Laden turns himself in and repents for incinerating all those innocent people on 9/11.*

*"I'll care about the Koran when the fanatics in the Middle East start caring about the Holy Bible, the mere possession of which is a crime In Saudi Arabia*

*"I'll care when Abu Musab al-Zarqawi tells the world he is sorry for hacking off Nick Berg's head while Berg screamed through his gurgling, slashed throat.*

*"I'll care when the cowardly so-called "insurgents" in Iraq come out and fight like men instead of disrespecting their own religion by hiding in mosques.*

*"I'll care when the mindless zealots who blow themselves up in search of nirvana care about the innocent children within range of their suicide bombs.*

*"I'll care when the American media stops pretending that their First Amendment liberties are somehow derived from international law instead of the United State Constitution's Bill of Rights.*

*"In the meantime, when I hear a story about a brave Marine roughing up an Iraqi terrorist to obtain information, know this: I don't care.*

*"When I see a fuzzy photo of a pile of naked Iraqi prisoners who have been humiliated in what amounts to a college hazing incident, rest assured that I don't care.*

*"When I see a wounded terrorist get shot in the head when he is told not to move because he might be booby-trapped, you can take it to the bank that I don't care.*

*"When I hear that a prisoner, who was issued a Koran and a Prayer mat, and fed 'special' food that is paid for by my tax dollars, is complaining that his holy book is being 'mishandled', YOU can absolutely believe in your heart of hearts that I don't care.*

*"And oh, by the way, I've noticed that sometimes it's spelled 'Koran' and other times 'Quran'. Well, Jimmy Crack Corn and – you got it, I DON'T CARE!*

*"If you agree with this view point, pass this on to all your e-mail Friends. Sooner or later, it'll get to the people responsible for this Ridiculous behavior! If you don't agree, then by all means hit the Delete button. Should you choose the latter, then please don't complain when more atrocities committed by radical Muslims happen here in our great country.*

*"If you can read this, Thank a teacher!*

*"If you are reading it in English, Thank a Veteran."*

*"I sort of remember that. It was a chain e-mail wasn't it?"*

*"Yep. I'm ready, what's the hold up?"*

*"Ginger, you really don't want to get the radiation exposure."*

“Why, will it make me sterile? You’re the one more likely to be sterilized by the radiation than me. Or, did you forget we can play patty cake whenever we want?”

“Alright already, let’s go.”

“Hold on you two, are you going out armed?”

“HK417s with suppressors and AG-C/EGLM grenade launchers plus EOTech sights. Fourteen spare rifle magazines and 12 HEDP grenades. We also have our Kimber’s plus the Hi-Powers for backup with 5 and 4 magazines per.”

“Are you taking your AWC Amphibians?”

“Naturally, with 2 spare magazines, all loaded with match ammo. I love that stuff, its standard velocity.”

“A couple of us should suit up and go with you.”

“Sorry, Ramón, no; call it owners’ prerogative.”

“Careful now; lock and load. Ramón, please close the inner door after us.”

The airlock was lighted with LED fixtures that gave off a tremendous amount of light for the amount of power consumed. Based on the amount of power the PV panels were generating, it either had to be twilight or the panels were covered with some of the fallout. We had Peltz TacTikka LED headlamps rather than MagLites to keep our hands free. Surefire lights were mounted on our HK417s.

“Cover me and I’ll open the outer blast door.”

“Pop it just a crack and let me look out before you open it Cal.”

“Ok, good idea.”

I opened the blast door just a little, creating a space to look out that was about the thickness of the door.

“See anything?”

“It’s sort of dark out; kind of like twilight.”

“That explains the reduction of output in the PV panels. I was guessing it was either partly dark out or the PV panels were cover by fallout.”

“Or both?”

“Could be. Turn on the Surefire light on your rifle.”

“Carbine.”

“Whatever; just do it.”

“You don’t have to be pushy.”

“Yes I do, this blast door is heavy and we need to spray some WD-40 or something on the hinges.”

“I can help.”

“You help us both by covering my back and keeping an eye out. Damn, the door hit something and won’t move further. Peek around the edge and see what the problem is.”

“The problem is the bodies.”

“What bodies?”

“It appears to be people from Eloy. I sort of recognize one person.”

“Sort of?”

“It’s hard to tell with the burns. Oh, I bet those are burns from the radiation. Hold my carbine and I’ll move them.”

“How many?”

“Three, a man, a woman and a teenage girl; I knew we should have put in intercoms outside the blast doors.”

“Once Jacob poured the airlocks, it would have been difficult.”

“I seem to recall that Jacob and you had a failure to communicate.”

“That was my fault. I simply didn’t understand what he meant.”

“Aren’t you glad you married me and I was around to explain when they blew that nuke in San Diego?”

“Don’t discount the contribution you made in finding grass seed that didn’t require much mowing. It only takes two guys to mow it; one up top pulling the rope attached to the mower and one on the mower guiding it.”

“Ok, push the door open.”

“Take your rifle.”

“Carbine.”

“This is my rifle and this is my gun. This one is for shooting and one is for fun.”

“Huh?”

“It’s what DI’s told the Marine recruits when they referred to their service rifle as a gun. A gun is a cannon on a naval vessel.”

“Picky, picky.”

“Yeah, like the difference between a rifle and a carbine. Most service weapons are considered rifles if they have a 20 inch barrel and a carbine if the barrel is shorter. That applies to M16s, Steyr AUGs and your Mini-14.”

“Don’t forget we converted all the Ruger rifles to 20 inch barrels and 1 in 7 or 1 in 10.”

“Which makes them rifles instead of carbines.”

“It’s dark out.”

“Yes it is and it’s half an hour before noon.”

“Shine a light on the PV panels Cal.”

“Didn’t bring one so we had our hands free.”

“Use the Surefire on your carbine. It sort of looks like sand on the PV panels, but I can’t tell for sure with the Surefire light.”

“Neither can I; it sure is cold out.”

“I’ll have to check the greenhouse.”

“Only when the radiation falls below 100mR/hr.”

“Can you fire up a forklift; we need more fish from the drive-in freezer.”

“They should be fully charged. Will one pallet box be enough?”

“I think I can squeeze that much in.”

“I’ll look for a partial box.”

“We gave those to ministers in Eloy.”

“Ramón, check all the freezers and see if we have room for a cubic yard of fish. That’s 27 cubic feet.”

“Standby, I’ll check with the other shelters. Ginger should know how much room we have in your freezers.”

“Ginger, how much room do we have?”

“About 12 cubic feet empty. There are more people in the other shelters so there should be enough room.”

“Cal, best guess is 13 cubic feet.”

“10-4.”

“That’s less than a cubic yard Ginger.”

“I can still add Calvin. Get a pallet box.”

What Cal was overlooking was the fact that the fish fillets were small enough to fit into all the nooks and crannies in the freezers. I rather suspected that the empty space had been underestimated to avoid having more Blue Tilapia distributed to the shelters’ freezers. I filled those freezers and knew the ratio of poultry to beef to pork to Tilapia. The average person eats 60 pounds of beef, 50 pounds of pork, 60 pounds of chicken, 15 pounds of turkey and 15 pounds of fish a year, a total of 200 pounds. We didn’t have a lot of turkey, 2 22 pound birds per freezer. The chickens were better but probably not 60 pounds per person. We had extra pork and beef and the extra space had been filled with Tilapia. I’ll just do a Marie Antoinette on them and tell them to eat fish.

“Why did we have to have WWII, Cal?”

“It was inevitable Ginger.”

*It is possible to make a reasonable prediction about where World War III will break out based upon historical Russian military strategy. Putin is following a very predictable pattern that dates back to over 100 years of Russian military history coupled with the present set of events.*

### *The Present Situation*

*Russia is bleeding the Petrodollar dry by leading the BRIC nations in the purchase of Iranian oil for gold. The same situation is emerging in Europe as Russia is on the verge,*

*either by invasion or by proxy control of Ukraine, of controlling a good portion of energy needs to Europe and being able to bypass the Petrodollar as a means of payment for Russian energy shipments into Europe. Further, Russia has just completed a deal which brings China into the Russian energy sphere of influence. This will eventually culminate in the weakening of NATO and the isolation of the United States both economically and militarily. What does Russia want and what will be its eventual goal?*

*Some believe that Russia wants to occupy the United States and perhaps Putin eventually does, but it is not practical at this particular point of time. Economic attrition and military isolation are Putin's best friends at this time. After all, the US is in possession of over 2,000 nuclear weapons and 72 nuclear armed submarines which are virtually undetectable. Despite the presence of these American deterrents, do not be lulled into a false sense of security, this cold war will soon turn hot.*

### *Putin's Military Strategy*

*Putin is pursuing a military strategy that most Americans have never heard of and even fewer understand and it has to do with Russia's geographic makeup and this holds the key to Russian military strategy. Although Russia possesses one of the largest land-masses in the world; they possess an abhorrent lack of useable coastline. Historically, Russian economic growth has been severely impeded because of the lack of usable ports. Russia rues the day that they sold Alaska to the United States. It also helps to explain why Syria has jumped to the forefront of world affairs. Russia is sitting on vast energy deposits and they are threatening to expand their energy based and mineral world dominance by exploiting the newly discovered riches at the North Pole and they have invested significant resources in beefing up their Arctic fighting forces towards this end. Russia may be able to acquire vast mineral resources, but without significant ports from which to trade, the Russian economy will always run in second gear. One does not need to have access to Putin's war plans to understand what is going on; one need to only be a student of history in order to predict where this coming conflict is headed.*

### *The Heartland Theory*

*British geographer and military historian, Sir Halford Mackinder, in 1904, wrote an article that changed how politicians and military men viewed the world. The theory that had so influenced nearly five generations of strategists was called simply, the Heartland Theory. Basically, Mackinder's Heartland Theory views geo-political military history as a struggle between land-based and sea-based powers. Mackinder believed the world had become a "closed" system, with virtually no new lands left for the European powers to discover, to conquer, and to fight over without creating chaos elsewhere. According to the theory, the common denominator for world conflict has been reduced to sea powers vs. land-based powers, which would subsequently struggle for dominance of the world, and the ultimate victor would be in a position to set up a world empire. The determining factor in this struggle was physical geography; "Man and not nature initiates, but nature in large measure controls".*

*From Mackinder's perspective, Soviet Russia had to be contained within the heartland. Mackinder's believed that whosoever controlled Eurasia, controlled the world, so long as the controller had access to useable ports. The problem for Russia is that they have so few usable ports thus impacting commerce and the movement of men and material in a time of war. So long as Russia could be prevented from being a major sea power, the forces of the United States and Western Europe were safe. However, if Russia should become a sea power in conjunction with its massive land-based power, Russia could rule the world. And now, through the release of Russian secret documents we are finding out that Stalin was willing to fight a war with the US over obtaining Alaskan sea-ports as predicted by the Heartland Theory.*

### *Stalin's Secret Plans to Invade Alaska In 1951*

*In 1999, at a conference held at Yale University, previously-secret Russian documents revealed that Russian Dictator Joseph Stalin had undergone extensive planning in preparation to invade North America as early as 1951. The event was one of a series of programs sponsored by the Washington DC-based Cold War International History Project (CWIHP), which monitors new documents pertaining to the Cold War. The Yale conference centered on Stalin's relationship with the United States. These documents, from the Cold War, revealed that Stalin had a definitive plan to attack Alaska in 1951-52 and had undergone major military preparations in anticipation of the invasion. Russia has always considered itself to be landlocked and this served as the major motivation for Russia's planned incursion which would have given Russia access to good sea ports. Stalin subsequently died and the plans were abandoned, at least temporarily, mostly due to American dominance in nuclear weapons. In 2014, we see the importance of the Heartland Theory in guiding Russian foreign policy with regard to Syria and to some degree, China. The Chinese-Russian energy deal allows Russia access to Chinese ports. Russia is steadfast in its protection of Syria because of the Russian need to use the ports of Tartus and Aleppo. And it is highly likely that once the energy pipelines in Ukraine are secured by Putin, Europe will soon be making seaport concessions to Russia in exchange for Russian based energy shipments. At the beginning of the crisis in Crimea, the first objective of the Russian military was to secure the naval base in Sevastopol. The Russians desire the fleet to grow in support of a new Mediterranean task force created by Russia last year as a move to counter an increase in US naval presence in the Mediterranean. If Ukraine had been allowed to be wooed by Western banksters to join the European Union, Russia's most important naval force would have been effectively neutered because of the potential loss of Sevastopol as a naval base. The G7 nations may view Putin's actions in Crimea as being offensive, Putin, no doubt, views the action as a matter of military survival. Again, the Heartland Theory comes into play. The Heartland Theory also came into play during last year's Syrian crisis as Putin threatened to nuke the United States if it invaded Syria in violation of international law. Syria is critical to the Russians on a number of fronts including the prevalence of Syria's warm water ports. Syria's importance to Russia can be condensed to five essential factors:*

1. *Russia has a naval installation in Syria. The base is vitally important because it is Russia's last foreign military base outside of the former Soviet Union. Putin is playing a bit of a slight of hand approach by stating they are closing the facility. However, the Russians are maintaining navy technicians and they service their permanent flotilla in the area.*
2. *Russia utilizes the port at Aleppo and Tartus to facilitate its sea trade.*
3. *Fortifying Syria provides protection for Iran who is undermining the Petrodollar by selling its oil for gold. This allows Putin to be engaged in an economic war against the dollar and the Federal Reserve.*
4. *Syria is a military satellite of Russia as Assad continues to buy a high quantity of Russian military exports, which aids the Russian economy.*

### *America's Options*

*Control of Ukraine and its gas shipments through the country is the key to swinging the balance of power on the planet. If Ukraine comes under the complete control of the Russians, energy blackmail and the eventual disintegration of NATO will occur. If Russia moves to take over Ukraine, what options does the United States have? It is not likely that at this point in time that NATO has the ability to keep Russia out of Ukraine. Where is Russia most vulnerable? The clear answer is in Syria. Syria has both economic and military significance to Russia. If Syria was to fall to the United States, the military and economic loss would be catastrophic, not the least, would be the loss of Syrian ports. Russia's prudent course of action would be to continue to erode the US economy by its relentless attacks upon the Federal Reserve and the Petrodollar. However I do not foresee the Federal Reserve bankers are going to continue to let this happen as the dollar erodes. Subsequently, when Ukraine falls, Syria and possibly Iran will be attacked by the United States. The provocation will likely be a false flag event within the United States in which the Syrians are falsely implicated. Remember the Heartland Theory, it also predicts the second front of the coming World War III. Along these lines, Putin will attack Alaska if the United States attacks Syria. This is how a cold war can turn hot in a hurry. If you do not believe me, just ask the Polish as they have begun mobilizing for war. DHS just began a martial law lock down drill yesterday which will last for nearly a month. Ask yourself, what do these people know that you do not? Again, I want to caution people to stock up on supplies. If a false flag event does occur, your ability to resupply could be seriously imperiled.*

*"That's brilliant, when did you come up with that?"*

*"I didn't. That an excerpt of a 2014 radio show, Dave Hodges, March 28, 2014 The Common Sense Show. A friend e-mailed it to me and I went to the source and copied that into a file titled, It is possible to make a reasonable prediction about where World War III will break out based upon historical Russian military strategy.doc"*

“I’d like to read it.”

“Here, take the copy I printed out. Add Laserjet toner cartridges to our list of things we are looking for.”

## The Dome III – Chapter 29

All of Jerry and TOM's stories were on the computer. In TOM's case, it was almost like having Wiki on the computer. I had done a search on the computer containing the stories and searched for 'pounds of beef'. One of the stories with a hit was *The Mag*. TOM had looked up meat consumption, probably on Wiki, and included it in that story.

The fact of the matter was that Jerry wrote better stories, in most respects. When it came to what he liked, he had a lot in common with TOM. TOM went for the high priced M1A Loaded, Mossberg 590A1 and a M1911 knockoff, the PT1911. We had them too, the M1A Loaded, the PT1911 and the 590A1. The M1A Loaded was the least expensive M14 clone with a match grade barrel and other match features. The PT1911 had the features of our Kimber's for \$300 less. TOM admitted that the shotguns he'd owned the most of were the ever popular Remington 870. He started out with an 870 in 12 gauge and a second in 20 gauge. Next he bought a 20 inch barrel for his 12 gauge and had the chamber reamed out to 3 inches.

Later, he bought a pair of 870s with 20 inch barrels but made the mistake of getting blued actions rather than parkerized actions, which didn't rust. Jerry was an H&K fan and bought an affordable PTR91 and apparently for personal reasons a Remington 11-87 and had a Poly-Choke installed. Everyone has their favorites and in my case it was the Browning Hi-Power shooting 124 grain Speer Gold Dot +P ammo. I noticed in later stories that TOM switched from recommending 230 grain Speer Gold Dot .45acp to the 200 grain Speer Gold Dot +P.

If the wind turbines couldn't keep up with our electrical needs, the 50kw generators would kick in so I wasn't overly concerned on the reduced PV panel output. I got the forklift and hauled a yard of fish covered with a plastic sheet to the Dome's blast door and radioed Ramón to get a bundle of the 1½ft³ U-Haul boxes and leave them in the airlock. When he radioed that boxes had been delivered along with a tape gun, we opened the blast door and Ginger went in to assemble the boxes and when assembled opened the blast door and tossed them through.

I loaded them and stacked them just outside the door we were using. When about ⅔ were loaded, I radioed her to open the door and stack them in the airlock. It almost takes as long to explain it as it did to do it. We rinsed down with the decontamination shower and called Ramón again to distribute the fish to the 3 shelters.

"More fish? Why can't we have T-Bones?"

"Because we have the loins cut as New York Strips. The only T-Bones we cut are the true Porterhouse steaks and there is only one on each side of beef. By the original definition, a true Porterhouse had no dividing bone between the filet and loin. Modern butchers cut the big T-bones and call them Porterhouse steaks. A true Porterhouse has

no center bone and is very thick. They harken back to the day when butchers didn't have band saws to cut steaks and the Porterhouse was cut from between 2 T-bones and the only bone was at the top.”

◦

Author's Note: When I was very young, I saw a butcher cutting pork chops using a cleaver in a grocery store in Greene, Iowa. The description of the true Porterhouse was provided by an US Air Force meat cutter and repeated to me by Hughie, who taught me to cut meat. The former was the same individual who saw the change of command from the Jupiter C missiles to the Polaris missiles in Turkey in 1962. All 5 George Washington class Polaris subs were in service during 1962 as were the Ethan Allen class Ethan Allen and Sam Houston. The 3<sup>rd</sup> Ethan Allen class, 7 November 1962, didn't depart on its first patrol until 11/7/62 due to a collision with a US ship. The Ethan Allen class George A. Marshall with a port call in İzmir, Turkey, in October, and she became the first US FBM to visit a foreign port. The Thomas Jefferson made its first patrol beginning in October 1963. The submarine remained in service until replaced by the Ohio class. Additional classes were added before the Ohio class. *41 for Freedom* refers to the US Navy Fleet Ballistic Missile (FBM) submarines from the George Washington, Ethan Allen, Lafayette, James Madison, and Benjamin Franklin classes.

In October 1959, the location of the third and final Jupiter MRBM squadron was settled when a government-to-government agreement was signed with Turkey. The US and Turkey concluded an agreement to deploy one Jupiter squadron on NATO's southern flank. One squadron totaling 15 missiles was deployed at five sites near İzmir, Turkey from 1961 to 1963, operated by USAF personnel, with the first flight of three Jupiter missiles turned over to the Türk Hava Kuvvetleri (Turkish Air Force) in late October 1962, but USAF personnel retaining control of nuclear warhead arming.

◦

I guess I should have known for a fact that World War III would be started by Fleet Ballistic Missile Submarines. But then, one can never know the enemy's mindset. The advantage of missile subs was the long range of the missiles coupled with a short fly time if they were released closer to your shores.

“I'm going to check the greenhouse.”

“No you're not, Ginger, you've had enough exposure for today.”

“I'll wear my suit.”

“I don't care if you wear a dress; you're not checking the greenhouse.”

The greenhouse was accessible via tunnel. All the buildings except the drive-in freezer were. Most, but not all buildings, had what amounted to a small basement, another of

Jerry's ideas, later copied by TOM. The latter wasn't bashful about adopting Jerry's ideas or information from Wikipedia. Apparently the links he included in his stories were mostly dead links by the time he published his CD because the links had been removed. I could sense my statement put Ginger in a huff but I was right, even if she wouldn't admit it.

"You were right, I'm sorry."

"Thank you. I just don't want you or anyone to get too much exposure to the radiation. From the looks of the sky, about the only thing we'll be growing is what we can produce in the greenhouse and livestock. We're going to need to limit the livestock growth due to the amount of feed we have stored."

"We have a lot of feed stored."

"We have a lot of livestock, too. We'll probably end up herding them from the barns to the first Warehouse and slaughter them there since that's where the meat cutting equipment is located. Someone is going to get some exposure just moving the bacon and hams to the outside smokehouse."

"They'll get exposed moving the livestock too."

"Both the barns and the Warehouse have ramps to the tunnels. It was initially done to allow pallets to be moved from the Warehouses to the shelters. Hank suggested adding ramps from the barns to the tunnels so we could move livestock *if the worst happened*."

"I feel bad about those 3 people."

"Don't, they were clearly trespassing."

"The woman worked in the garden a long time ago, that's why she seemed familiar."

The TTAPS study focused on Nuclear Winter. *Nuclear winter (also known as atomic winter) is a hypothetical climatic effect of counter-value nuclear war. Models suggest that detonating dozens or more nuclear weapons on cities prone to firestorm, comparable to the Hiroshima city of 1945, could have a profound and severe effect on the climate causing cold weather and reduced sunlight for a period of months or even years by the emission of large amounts of the firestorms smoke and soot into the Earth's stratosphere.*

*Similar climatic effects are believed to have followed large comet and asteroid impacts in the past, due to sulfate bearing rock being pulverized and lofted high into the air combined with the ignition of multiple forest firestorms, which is sometimes termed an impact winter and following a Super volcano eruption, pluming sulfate aerosols high into the stratosphere, known as a volcanic winter.*

*The nuclear winter scenario assumes that if 100 or more city firestorms follow the nuclear explosions of a nuclear war, and the firestorms loft large enough amounts of sooty smoke into the upper troposphere and lower stratosphere, soot lifted by the conveyor belt offered by the pyro cumulonimbus clouds that form during a firestorm. At 10–15 kilometers (6–9 miles) above the Earth's surface, the absorption of sunlight could further heat the smoke, lifting some, or all of it, into the stratosphere, where the smoke could persist for years, if there is no rain to wash it out. This aerosol of particles could block out much of the sun's light from reaching the surface, with this causing surface temperatures to drop drastically, and with that, it is predicted surface air temperatures would be akin to, or colder than, a given region's winter, for years on end.*

*The exact timescale for how long this smoke remains, and thus how severely this smoke affects the climate once it reaches the stratosphere, is dependent on both chemical and physical removal processes.*

*The physical removal mechanisms affecting the timescale of smoke particle removal are how quickly the aerosol particles coagulate, and fall out of the atmosphere via dry deposition, and to a slower degree, the time it takes for solar radiation pressure to move the particles to a lower level in the atmosphere. Whether by coagulation or radiation pressure, once the aerosol of smoke particles are at this lower atmospheric level cloud seeding can begin, permitting precipitation to wash the smoke aerosol out of the atmosphere by the wet deposition mechanism.*

*The chemical processes that affect the removal are dependent on the ability of atmospheric chemistry to oxidize the smoke, via reactions with oxidative species such as ozone and nitrogen oxides, both of which are found at all levels of the atmosphere. Historical data on residence times of aerosols, albeit a different mixture of aerosols, in this case stratospheric sulfur aerosols and volcanic ash, from mega volcano eruptions, appear to be in the 1-2 year time scale. Aerosol atmosphere interactions are still poorly understood.*

*Based on new work published in 2007 and 2008 by some of the authors of the original studies, several new hypotheses have been put forth.*

*A minor nuclear war with each country using 50 Hiroshima-sized atom bombs as airbursts on urban areas could produce climate change unprecedented in recorded human history. A nuclear war between the United States and Russia today could produce nuclear winter, with temperatures plunging below freezing in the summer in major agricultural regions, threatening the food supply for most of the planet. The climatic effects of the smoke from burning cities and industrial areas would last for several years, much longer than previously thought. New climate model simulations, which are said to have the capability of including the entire atmosphere and oceans, show that the smoke would be lofted by solar heating to the upper stratosphere, where it would remain for years.*

*Compared to climate change for the past millennium, even the smallest exchange modeled would plunge the planet into temperatures colder than the Little Ice Age (the period of history between approximately AD 1600 and AD 1850). This would take effect instantly, and agriculture would be severely threatened. Larger amounts of smoke would produce larger climate changes, and for the 150 teragrams (Tg) case produce a true nuclear winter (1 Tg is  $10^{12}$  grams, one trillion grams), making agriculture impossible for years. In both cases, new climate model simulations show that the effects would last for more than a decade.*

The source of the information was, naturally, Wikipedia and I'd copied it after the San Diego nuke event. We were fairly certain this attack had been counter-value as evidenced by the hits on Phoenix and Tucson. The available evidence seemed to fit the TTAPS study and more recent studies. We were possibly looking at 10 years, or longer, before crops could be grown outside a greenhouse. The Tilapia would be dead due to the cold except for the few we kept in tanks in one of the barns. (Prepare for the worst and hope for the best.)

Until the radiation fell to an acceptable level, preferably 50mR/hr, we couldn't occupy the towers. That would probably occur in ~15½ months. Until then, we were caught between a rock and a hard spot. We were able to move around, but only underground. The emergency exits for the shelters depended on the tunnel system. After the initial use of pedestrian archways/underpasses, we changed the program and all tunnels were 7 feet high with a concrete foundation and floor and 7 feet wide. The bases were 20 feet below ground level and had a protection factor over 10 million. Lessons learned the hard way are easier to remember. We still have the original archways/underpasses, stacked between the two Warehouses beyond the smokehouse, 3 layers deep.

Our greatest asset wasn't the gold and silver in the vaults, the food in the Warehouses, our livestock or our hardware. It was the land, all 3,840 acres. It was going to be a terrible job recovering it when we got out but I'd guess we'd have it done before weather permitted growing crops. No matter what we grew. We'd have tons of manure to incorporate and probably several tons of rotten fish. If I remember my history of early America, Indians used fish for fertilizer. I was never able to confirm that with Wikipedia. What made more sense was that the Indians ate the fish and used the leftover flesh, skin and bones for fertilizer.

We're 9½ weeks into a probable 15½ month stay waiting for the radiation to fall to 50mR/hr. We would depend on our AMP devices in lieu of the spreadsheet. We never asked TOM for it. A version was included on his CD and another version of it on Jerry's CD. Plant 42 was a logical target because Lockheed's Skunk Works was there and a warhead for Los Angeles could have been easily diverted there.

The fifteen months weren't all pleasant due to the staff being cooped up in the shelters. From time to time, tempers wore thin, arguments developed and a rare fistfight occurred. Ramón had to settle the disputes because he had the most experience. Ginger and I were only brought in once to threaten an employee with banishment. He was hot

and probably would have said, *take your job and shove it*. Fortunately the head of the family, his wife, stopped him simply by telling him to *sit down and shut up... or else*.

He might have made it, we were 218 days into the stay and the outside radiation level was 119mR/hr. I have no idea what she had in mind with *or else* but Ginger hinted that she was probably threatening to use a woman's ultimate weapon, withholding sex. The shelters had individual bedrooms for the adults and dorms for the teens and younger children.

"Do you think anyone in Eloy survived?"

"Cal, I believe that some must have survived. Several of the women that helped early on asked a lot of questions about our various building projects. They actually witnessed some of the projects in the construction phase and I explained about radiation shielding much as I did with you. I'm certain that after the San Diego nuke event, some who hadn't taken it to heart did so. Some had constructed a Kearney shelter when the news of the San Diego nuke broke. I'm quite certain that those families had a stocked shelter by the time the news of the Comet broke."

"The 3 bodies..."

"She had been listening when I gave those explanations and was very skeptical, claiming it could never happen. She asked for a tour of the Dome and I declined, saying the house was a mess."

"What, you missed a dust mite?"

"No; it wasn't any of her business what the inside looked like. Her husband worked for one of the cotton farmers in the area."

"Most of the employees and their families have seen the inside of the Dome."

"And none of the people from Eloy. The only outsiders that have seen the inside are the out-of-town contractors. Despite the amount of food we have, we're going to be very reserved on how much we distribute. We won't have to go around looking for others until we can do an outside garden. Starting the field crops like corn, oats, barley, wheat, beans and rice should come in the same time frame."

"That could take 10 years."

"So? We have food for 30."

"And, ammo for World War 20."

"You know, I expect Andy to eventually show up, given the weather and the overcast."

“How’s your Mom doing?”

“According to Andy and Sheree she wasn’t doing well. I sure wish the farm wasn’t so close to St. Louis.”

“Its west of St. Louis isn’t?”

“It’s southwest, Sullivan, east southeast of Whiteman Air Force Base. They could get radiation from Kansas City or Whiteman depending on the wind.”

“We could get radiation from Phoenix, Tucson, Palo Verde, San Onofre, Los Angeles, Palmdale, Edwards Air Force Base and Diablo Canyon.”

“That’s so far. I think our greatest concern would be the amount soot a city like Los Angeles could generate.”

“Based on what we saw on our outing and a follow-up study to TTAPS, you’re probably right. The later study indicated that if an enemy stuck counter-value targets, the atmosphere might not clear for years. Yes, I read it at Wikipedia and have a copy.”

“Don’t you just love those 3 terabyte drives?”

“Ok folks we’re at 242 days and the outside radiation level is 104mR/hr. The adults will be allowed out for up to 4 hours with a caution. Don’t go out if you plan to have more children. Children will be allowed their first outing at approximately 432 days when the radiation level is expected to reach 50mR/hr. <sup>131</sup>Iodine has a half-life of 8 days and we shouldn’t need KIO<sub>3</sub>. We have adequate supplies available if anyone wishes to take it and anyone spending more than 4 hours outside will take it.

“The first order of business will be cleaning the guard towers and staffing them with rotation of 4 on and 20 off. The second order of business will be decontamination of the Homestead and enough ground to let the livestock out. Hank and Ramón will have instructions after they meet with Ginger and me.”

“Hank, what have you been doing with the manure and bedding?”

“We’ve been hauling it out using loader buckets and piling it.”

“Big pile?”

“You have no idea, Cal.”

“We haven’t been out. How much has the sky lightened?”

“Very little according to the hands cleaning barns. At least no sunshine has made it through the overcast. It’s only a few degrees warmer.”

“Ramón, use your reserve security forces to hose down the towers and check them for radiation. There are electric heaters in the new Warehouse we bought to heat the towers. At the moment, forget the Gatling guns and just use the M2A1, Mk 19s and M240Bs plus their personal arms.

“Later we’ll run the net the length of the canal and remove the dead Tilapia, adding them to the manure. We should probably do the pond first to estimate the difficulty of the task. Keep in mind that those time limits I specified are carved in granite. I really must insist that no one gets more than 4 hours of exposure at 104mR/hr and 8 hours exposure at 50mR/hr. I simply don’t have enough information about cumulative radiation doses to risk everyone’s lives on higher exposure levels. And Ramón, the four hours includes travel times so figure accordingly.”

“Does that apply to us too, Cal?”

“Yes, Hank, it applies to everyone. If some of the wives want to help Ginger in the greenhouse, we can get it cleaned up and start new plants. The wind turbines and PV panels generated most of the electricity needed and the generators only kicked in a few times to help charge the batteries so we should be good on propane for the moment. The diesel tanks were refilled early on June 20, 2020, 2 days before the war. Ginger, did you find another biodiesel producer?”

“Sure didn’t.”

“That will give fuel recovery a higher priority. If it stays darker than normal for very long, nobody will be growing crops. How many engine rebuilds do we have for the generators?”

“Four with two alternator heads each, plus a slew of parts and filters for 10 or more years.”

“Oil?”

“Generator oil is Castrol 15w-40 and we have 5,500 gallons, 100 55 gallon drums. We also have the various lubricants the farm equipment uses in very large multiples. At least as much as, if not more than, the generator oil; just like you told me Cal.”

“I told you, Hank?”

“Don’t you remember, Cal?”

“Nope; I guess I must be getting old.”

“Not really, Cal; you just have too much on your mind. I did it when you started replacing batteries and had to order everything in because the distributors didn’t have the quantity I wanted on hand. I got a good volume discount too.”

“It was delivered around the time I gave you the chill pill honey. You were so worried about the small details that I looked after the big details, like the extra ammo and the stallions. Ramón probably exhausted his ammo contacts.”

“What did you get, Ramón?”

“I got more of everything including the Remington .45-70-405. He said that when they shipped it to us they actually had enough for 2½ truckloads and they hadn’t produced anymore .45-70-405 since. I could have what they had for 89¢ a round if I paid the freight, so I bought it and paid the freight. I stored it in the new pole building with the first 2 truckloads.”

“I think that should cover us on .45-70-405.”

“You instructed me not to get more, but Ginger didn’t, so I did.”

“The freight wasn’t that much honey.”

“What else did you get?”

“Two and one half truckloads of Remington full power .45 Colt.”

“I didn’t know they loaded that.”

“Neither did I Cal, but they were one hell of a lot cheaper than Buffalo Bore. Came to 89¢ a round plus freight. Buffalo Bore goes for 2 bucks a round plus freight unless you buy 12 boxes. They pay the freight if you buy 12 boxes or more.”

“We’ll still have ammo at the end of the tribulation.”

“Are you regular Methodists, Evangelical Methodists or Wesleyan Methodists?”

“United Methodist Church Ramón, regular Methodists. The United Methodist Church (UMC) was formed in 1968 as a result of a merger between the Evangelical United Brethren Church (EUB) and The Methodist Church. The former church had resulted from mergers of several groups of German Methodist heritage; however there was no longer any need or desire to worship in the German language. The latter church was a result of union between the Methodist Protestant Church and the northern and southern factions of the Methodist Episcopal Church. The merged church had approximately 9 million members as of the late 1990s. While United Methodist Church in America membership has been declining, associated groups in developing countries are growing rapidly. You’re Roman Catholic, right?”

“Well, yeah; what about it?”

“Nothing, probably 70 percent of the farm hands and vaqueros are Roman Catholics. I don’t believe we have any Jews. Any Jew willing to work as hard as we do on the ranch probably moved to Israel. None of the hands has ever refused to work on Shabbat.”

“Huh?”

“Sundown Friday night until sundown Saturday night.”

“Is that absolute?”

“Well, the timing is for 99.99 percent of the Jews around the world. The amount of work done on Shabbat varies among various Jewish sects. I’ll hire anyone except a Muslim.”

“That’s discrimination.”

“It’s The Foster Doctrine.”

“What’s that?”

“Ginger has a copy of the e-mail on her computer.”

### The Dome III – Chapter 30

“Apparently Ramón had never seen her e-mail. He agreed with the sentiment and maintained that it was still discriminatory.”

“Of course it is. I believe that Americans have many prejudices and some of them date back to the founding of the nation. When the consensus changed, they amended the Constitution. The Civil War ended in 1865, 155 years ago, and you’ll still find Johnny Rebs south of the Mason Dixon Line. You’ll probably find a few north of the Mason Dixon Line, too.

“What most people refer to the Stars and Bars was actually The Second Confederate Navy Jack, 1863 – 1865. There may be one good thing come out of World War Three, no more Méxicans’ sneaking across the border. Since the majority of our staff is Hispanic or Latino, it should be obvious that I don’t mind folks who originated in México. Arizona used to be part of México. On the 2010 US Census, question 8 asked:

Is the person of Hispanic, Latino, or Spanish origin?

No, not of Hispanic, Latino, or Spanish origin

Yes, Mexican, Mexican Am., Chicano

Yes, Puerto Rican

Yes, Cuban

Yes, another Hispanic, Latino, or Spanish origin – Print origin, for example, Argentinian, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.”

“So are they Hispanic or Latino?”

“All that I know is that they’re employees. They may speak Spanish at home, but all are fluent in English. They’ve been American long enough that Machismo doesn’t seem to be much of a problem. I liked to croak when she told him to *sit down and shut up... or else.*”

“He’s maybe 5 foot 9 and 150 pounds and she can’t be over 5 foot 2 and I guess 140 pounds?”

“I think her BMI is probably over 25. When they’re Señoritas, they have a figure to die for and when they become Señoras and have 2 or 3 kids most of the women seem to hold the weight.”

“I was back to my pre-pregnancy weight in 5 months after James. Kathleen and Jennifer took longer because I had to let the incision heal before I could add exercise to complement my diet.

“When they removed my uterus, the doctor left my ovaries because current medical thinking is that the advantages outweighed the risk of ovarian cancer. My uterus had

just about ruptured by the time I was rolled into the ER. Of course, the decision was the doctor's because I was unconscious."

"In the old days, they wouldn't have removed your uterus without consulting the family, specifically the husband. That caused problems for many Roman Catholics. Do you regret that?"

"No, Cal, we have a son for you to spoil and 2 girls for me to spoil."

"Actually I believe it is tossup which of us spoils James more, you or me. Kathleen and Jennifer are Daddy's little girls."

"Not so little, Daddy."

James had been born in 2012 and the twins in 2013, making them 8 and 7 respectively. As far as I was concerned they would be Daddy's little girls until I saw Ginger taking Always, Tampax and panty liners to their bathrooms. After that, they would be Daddy's big girls. I was guessing that it would be 6 or 7 years before that happened. It was likely we'd be well into the post-war recovery waiting for the sun to shine through the clouds.

Final exit from the shelter came 462 days after we entered. We entered on June 22, 2020 and exited fulltime on September 27, 2021 and baby, was it cold outside! We had security out from the day after the radiation level fell to 104mR/hr but everyone was limited to 416mR/day total. The same applied to the cleanup of the homestead and cleanup of a spot for the livestock. If I were to speculate, I'd say that the stink in the barns might be gone by the time we got sunlight.

"This is the gate, Red Alert!"

"Whatcha got?"

"I'd say about 30 to 35 people."

"Armed?"

"Affirm."

"Ramón, turn out half the part time security troops and man the front wall."

"10-4; you do realize that they will be spread thin."

"What's the range of the machineguns?"

"Ok, never mind."

Ramón was a 20 year man with 14 of those years as a member of the Arizona National Guard, while I never spent one day in the military. Kind of made me wonder. The effective range of M240B is 1,800 meters on a tripod; the M2A1 is the same 1,800 meters and the Mk 19 Mod 3 is 1,400 meters. Two miles is ~3,219 meters and half of 3,219 meters is 1,609 meters. The Mk 19 wouldn't quite reach, but we could loft the grenades as suppressing fire.

"What do you want?"

"Let us in."

"Nope. Answer the question."

"Food. You have some and we want it."

"Yeah, and the people in Hell want ice water."

"If you don't give it up we'll take it."

"Un-huh. Check the guard towers on both sides of the gate."

"What am I looking for?"

"There are 4 security people in each tower and you should look for a Ma Deuce, an Mk 19 Mod 3 and a M240B."

"How'd you get those?"

"It doesn't matter; what's important is for you to remember we have them."

"Is that all you have?"

"Nope. Do you know what M242 Bushmaster is?"

"It's a 25mm machinegun."

"Right with a range of 3,000 meters. The LAV-25AD has 8 Stinger missiles and a GAU-12 Equalizer 25 mm 5-barreled Gatling cannon and the LAV-25AT has TOW missiles launched from an M220 launcher. It carries a total of 16 TOW missiles, and 1,000 rounds of 7.62 mm ammunition for the M240 machinegun."

"I'll be back."

I shot him right where he stood. Arnold always said "I'll be back" and he always came back. It was cheap ammo, Lake City M80 overruns.

“You killed him.”

“You heard him; he said ‘I’ll be back.’ It didn’t make sense to me to allow that.”

They tuned and left, taking the body with them. I counted them as they left and there were 26 of them including the dead man.

“Ramón, teach your staff how to count how large a crowd of people is. It doesn’t make sense to pull people off their jobs unless it’s a large crowd; at least when we’re the only people with machineguns.”

“I screwed up, Cal. We should have taken some of the M224A1 mortar systems.”

“How big is that?”

“Sixty millimeters. It was the latest thing around 2010. It was lightweight compared to the M224 system. I found the bunker with the 60mm mortar bombs, but it didn’t dawn on me at the time we’d need mortars.”

“Range?”

“It depends on the round, close to 3,500 meters or about 3,800 yards.”

“Make a note and if we’re ever in the Flagstaff area, we can check Camp Navajo; which brings me to the unpleasant subject of salvage. Our basic needs are covered for years except for fuel and the different equipment we’ll need to switch from alfalfa as are primary crop to growing food for other survivors. We’ve already had a taste of what some of the locals will do. I doubt we’ve heard the last of them. I believe that we can expect the random survivor or two from Phoenix and Tucson.

“What I don’t know is what to expect them to have for weapons, presuming they’re armed. Most will be looking for food and are bound to hear our livestock making typical livestock sounds; you know what I mean. We’ll present the picture of being well nourished simply because we will be well nourished. Some could be like that hothead earlier and some may offer to work for food. I intend to handle the hotheads in same manner as I did earlier and since we’ll need all the labor we can get, bring aboard anyone who offers to work.

“Our first salvage operation will be a trip to Tucson and points between here and there. On the subject of fuels, we want #1 and #2 diesel, kerosene, gasoline and propane. We’ll also need more of PRI stabilizers we’re currently using. On the subject of farm equipment, we’ll need tractors, plows, disk harrows, rototillers if available and spring harrows or drags to prepare the soil. We’re also going to need broadcast planters for grass and drills for the other crops. We went through this once before with Yellowstone and a second time with the San Diego nuke. As most of you will no doubt recall, we contracted the preparation of the soil for use. That contractor used 5 very large four

wheel drive John Deere tractors pulling 10-bottom plows, tandem disks and finally drags.

“We’ll need the same equipment in the same quantity if we can locate it. Ginger sampled the soil and the radiation levels were only slightly above background levels for this area. Consequently, I’m not inclined to get road graders and remove any soil. We’ve built the natural sand and clay into a respectable layer of loam and I don’t see the wisdom in discarding it. Besides, consider the pile of soil we’d create scraping nearly 3,800 acres of land.

“Hank and Ramón will be in charge of acquiring the farm equipment and the fuels, respectively. Military weapons will be carried and one LAV-25A1 will accompany each group. We’d better plan on each group towing a 500 gallon trailer of diesel fuel. Hank, you’ll need flatbeds for the equipment so only take the semi-tractors and locate the flatbeds. Ramón, you’ll get tankers which we don’t have so it’s only semi-tractors for you too. Let’s get on it folks. Remember, the maximum allowable dose is 1.25R/day but for this, you can slip it up to 2R/day.”

“Ginger, I have a terrible headache, got something strong?”

“Yes. You can have it after I check you over. Here, take your blood sugar level while I get the blood pressure cuff and stethoscope. Well, your blood sugar is normal at 100. Your blood pressure is 148 over 88 with a pulse of 104. Let me check your eyes; equal and reactive. Here, take this and tell me if it doesn’t go away.”

“What is it?”

“Hydrocodone/APAP 10/325.”

“In English.”

“Strong Vicodin with limited Tylenol. You should lie down and let it work because it may cause drowsiness. Do you have a history of high blood pressure?”

“Not that I know of.”

“It might be a stress reaction to shooting that guy. I’m curious; why did you shoot him?”

“He said, ‘I’ll be back’ and I believed him. Arnold always came back so I decided to nip it in the bud (to put an end to something before it develops into something larger).”

It sounded like good advice so I went to our bedroom, undressed and crawled between the sheets. They were cool and relaxing, and I must have dozed off.

“Cal, wake up.”

“Huh? I must have fallen asleep.”

“Clear out the cobwebs, sleepyhead, supper is getting ready.”

“What did you fix?”

“We’re having prawns, Caesar salad, filet mignons, baked potatoes and cherry pie à la mode with homemade ice cream for dessert; plus one of the good bottles of Merlot.”

“Is there time for me to get a shower?”

“Plenty of time; I just put the potatoes in the oven.”

It had been a while since we’d had one of the special meals. The price of prawns had gone through the roof and that bottle of Merlot would have been a vintage year if it were champagne. (Vintage, in winemaking, is the process of picking grapes and creating the finished product). A vintage wine is one made from grapes that were all, or primarily, grown and harvested in a single specified year. In certain wines, it can denote quality, as in Port wine, where Port houses make and declare vintage Port in their best years. From this tradition, a common, though incorrect, usage applies the term to any wine that is perceived to be particularly old or of a particularly high quality.

I showered and shaved, dressing in a nice dress shirt, one of my pairs of wool dress slacks in tan and added my blue blazer. No tie. When I came down, Ginger said the potatoes were 25 minutes out and to time the filets accordingly. I noticed that our kids were absent. There were chopped chives, butter and sour cream potato toppings. The warm rolls were homemade. The salads were in the refrigerator, needing only dressing. I pre-heated the countertop gas grill and was just ready to turn the filets when Ginger returned.

“Seven minutes plus resting time out.”

“Good, I’ll get the salads out. Sorry, but the dressing is the bottled stuff from the store.”

“It doesn’t matter. In fact I rather like the factory stuff. Why don’t you just put the bottle on the table and we can dress our salads individually? I didn’t see the prawns.”

“I was out of room and they’re in the small refrigerator for the bar. I’ll get them.”

When she returned, I had the potatoes resting in a basket to keep them warm and the filets in the oven resting. We started with the prawn cocktail and Caesar salads. When 5 minutes had elapsed, I pulled the warm plates from the oven and added the potatoes, cutting each but not opening them. It was an enjoyable meal, but filling.

“I don’t really have room for cherry pie à la mode.”

“I know what you mean; it will keep.”

It was a thoroughly enjoyable evening and I let you guess what the alternate dessert was. In fact, we both slept in the next morning. After a leisurely breakfast, Ginger went to collect James, Kathleen and Jennifer. (The 3 are always listed in the order of their births.)

“Cal, there was a radio call for Ginger on 40 meters. He said he’d call back at 2100 hours UCT.”

“Did you get a name?”

“Andy.”

“From Missouri?”

“Yes. He said they had a place in the Ozarks and he wanted to talk to Ginger about coming out here.”

“Andy is Ginger’s brother, Ramón.”

“Then her mother should be coming back here?”

“I would presume so. Do you have any idea where we could find a triple wide with a desert package?”

“Of the top of my head, Phoenix or possibly Tucson.”

“You didn’t go with your people?”

“We talked it over and the consensus was that I should stay here and coordinate my two teams. They’ll be staying together as much as possible but I sent an M1114 with a M2A1 mounted.”

“Ok, it’s your decision and you probably know what will work best with the people you sent. I’ll tell Ginger about Andy calling and she’ll be standing by the radio at 2100 UCT. Write down the frequency for her.”

“I did that earlier; here you go.”

“Thanks, Ramón.”

I suspected there was more to the story about Ramón staying behind and it had nothing to do with avoiding action. Conversely, it probably had everything to do with him saying ‘I screwed up’. In his story *Paradise*, FlightER Doc got 25mm ammo for their LAV-25s

from Camp Navajo, the same as we'd done, if I recall correctly. Doc got to meet Dubya but I wasn't interested in going to Paraguay.

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In an aside, let me ask you something. What did Junior have in common with senior besides a family relationship and the same first names? After each was out of the Oval Office, neither of them sought headlines and more specifically avoided them most of the time. Senior got together with Clinton and worked to raise money for those suffering from the Indian Ocean Tsunami. US President George W. Bush donated \$16,000 from his personal funds; the city of Fargo, North Dakota gave \$10,000 of taxpayer money; and motorists in Chattanooga, Tennessee have been allowed to donate money to the relief effort in place of paying for traffic citations. *President Bush also called for a nationwide fundraising drive, headed by former US Presidents George H. W. Bush and Bill Clinton, and ordered American flags to fly at half-staff "as a mark of respect for the victims of the Indian Ocean Earthquake and the resulting Tsunamis".*

After Obama took office, Senior seemed to be devoting his time to growing old and Junior became a painter. No not houses, the other kind of painter. Bush appeared on NBC's The Tonight Show with Jay Leno on November 19, 2013, along with the former First Lady. When asked by Leno why he does not comment publicly about the Obama administration, Bush said, "I don't think it's good for the country to have a former president criticize his successor."

At President Obama's request, Junior and Bill Clinton established the Clinton Bush Haiti Fund to raise contributions for relief and recovery efforts following the 2010 Haiti earthquake earlier in January.

On May 2, 2011, President Obama called Bush, who was at a restaurant with his wife; to inform him that Osama bin Laden had been killed. The Bushes joined the Obamas in New York City to mark the tenth anniversary of the September 11, 2001, terrorist attacks. At the Ground Zero memorial, Bush read a letter that President Abraham Lincoln wrote to a widow who lost five sons during the Civil War. He's a class act, like his father.

Executive Mansion,  
Washington, Nov. 21, 1864.

Dear Madam,

I have been shown in the files of the War Department a statement of the Adjutant General of Massachusetts that you are the mother of five sons who have died gloriously on the field of battle. I feel how weak and fruitless must be any word of mine which should attempt to beguile you from the grief of a loss so overwhelming. But I cannot refrain from tendering you the consolation that may be found in the thanks of the Republic they died to save. I pray that our Heavenly Father may assuage the anguish of your bereavement, and leave you only the cherished memory of the loved and lost, and the

solemn pride that must be yours to have laid so costly a sacrifice upon the altar of freedom.

Yours, very sincerely and respectfully,

A. Lincoln

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“Andy radioed from the Ozarks and will contact you on this frequency at 2100 UCT. He wants to talk to you about coming out here. I think Ramón is up to something. He said he screwed up by not getting us 60mm mortars. Apparently the military came out with a lightweight version of the M224 called the M224A1 mortar system and it has an increased range with certain projectiles which are called bombs.”

“I’ll be standing by the radio for Andy’s call. What time is 2100 UCT in Arizona time?”

“Arizona is in the Mountain Time Zone and is UCT -7. As you know, we don’t observe Daylight Saving Time, with the exception of that the Navajo Indian Reservation, which extends into two adjacent states, Utah and New Mexico, does observe daylight saving time. The Hopi Reservation, which is entirely within the state of Arizona and is an enclave of the Navajo Indian Reservation, does not observe DST. The answer is  $21 - 7 = 14$  or 2pm.”

“Missouri observes Daylight Saving Time; or they did before the war. I suppose that’s why Andy used UCT or GMT to establish the time of the call. Excuse me while I set the radio to this frequency you gave me.”

It didn’t take Ginger long to go to my den/study, reset the frequency and turn the volume up so she could hear on most of the first floor. Promptly at 2100 UTC, the radio broke squelch and I heard Andy’s voice. I couldn’t help from overhearing and it was both a happy call and a mournful call. They had sufficient fuel to make the trip in his Suburban with the Cummins 6BT engine pulling a travel trailer. They expected to drive straight through, pausing only for rest stops (bathroom breaks/refueling) and to switch drivers. The 2 children would be riding in the travel trailer instead of the Suburban (don’t get caught). The children were Robert (Bob) age 14 and Cynthia (Cindy) age 12. We could put them up in the Dome long enough to locate, haul and assemble a triple wide.

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The Lipizzan breed suffered a setback to its population when a viral epidemic hit the Piber Stud in 1983. Forty horses and eight percent of the expected foal crop were lost. Since then, the population at the stud has increased, with 100 mares at the stud as of 1994 and a foal crop of 56 born in 1993. In 1994, the pregnancy return increased from 27% to 82% as the result of a new veterinary center.

Today, though found in many nations throughout Europe and North America, the breed is relatively rare, with only about 3,000 horses registered worldwide. The number of foals born each year is small, and breeders take extreme care to preserve the purity of the breed. Educational programs have been developed in order to promote the breed and foster adherence to traditional breeding objectives. The Lipizzan today competes successfully in dressage and driving, as well as retaining their classic position at the Spanish Riding School.

Because of the status of Lipizzans as the only breed of horse developed in Slovenia, via the Lipica stud, Lipizzans are recognized in Slovenia as a national animal. For example, a pair of Lipizzans is featured on the 20-cent Slovenian euro coins. Mounted regiments of Carabinieri police in Italy also employ the Lipizzan as one of their mounts. In October 2008, during a visit to Slovenia, a Lipizzan at Lipica, named 085 Favory Canissa XXII, was given to Queen Elizabeth II of the United Kingdom. She decided to leave the animal in the care of the stud farm.